

Instant Flexibility through Mastering Muscle Tension

By Pavel Tsatsouline, Master of Sports

I have trained Soviet commandos to DO SPLITS IN THREE TO SIX MONTHS—whether they liked it, or not. Now that I have turned into a capitalist running dog, I will teach you too. When I'm done with you, you'll have the flexibility of a mutant.

Or else.

-Pavel Tsatsouline, Master of Sports



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Praise for Pavel Tsatsouline's Beyond Stretching

"Pavel is the leading proponent of applied flexibility training for bodybuilding and strength athletics at work in the field today. His ideas are dynamic and fresh, he razes the sacred temples and shows the serious-minded fitness devotee another avenue of improvement. Real knowledge for real people interested in real progress."

—Marty Gauagher, Eaitor, Farrino Fretormance Fress, heaith and titness columnist, Washington Fost.com. World Masters Fowerlitting Champion

"The foremost authority, critic, and writer in the emerging "science of flexibility" is a Russian physiologist, Pavel Tsatsouline. His book *Beyond Stretching* is without question the definitive text on the subject. It is MUST READING for every athlete...YOU HAVE TO GET A COPY OF IT!"

—Juaa Biasiotto, Fh.D., Foweriitting U.S.A, Emmy awara winner, sports psychologist and writer, Four-time Fowerlitting Worla Record Floraer

"Pavel has great ideas on flexibility and strength exercises. We agree on all aspects of flexibility."

—Biji Supertoot, Wajjace, M.Sc., Worja Kickboxing Champion

"As an athlete, a coach, and a strength trainer who has personally done it all in the sports world from martial arts to the NFL, I have always experimented on me first when I read something as radical as *Beyond Stretching*. When I went into my first, full-to-the-floor splits in ten years, after just three weeks, I realized why this Russian was so cocky. It's because he is so damned right"

- Carter Stamm, New Orleans, LA

"Here are a book and video that present a revolutionary Russian system of stretching that's easy to do and get results fast.

I wrote in my review of Pavel Tsatsouline's book *Power to the People!: Russian Strength Training Secrets for Every American* that Pavel's methods get results while violating many of the "truths" that have been held as sacred for so long in the world of strength development.

In *Beyond Stretching: Russian Flexibility Breakthroughs*, he again offers result-producing methods, this time for increasing flexibility, while again violating what has been held as truths ever since you were in grade school gym class. Pavel's writing style is no nonsense, efficient and quite often funny. If you are looking to be coddled, you won't get it from him. He tells you when something is tough and then he tells you to do it any way. The beauty of it is when you do what he says, you will begin seeing progress in a couple of weeks.

I have been training in the martial arts for nearly 36 years and, as such, stretching exercises have been part of my regular routine. As a result, I'm more flexible than the average guy. After reading this book and viewing the video, I tried four of Pavel's exercises. Three weeks later, my flexibility had improved by about 20 percent. At this rate, I figure I'll be able to scratch my head with my big toe in a couple more months.

—Loren W. Christensen, author of The Fighter's Fact Book, Fighting Power an Speed Training

"This is the only really interesting book on stretching I've encountered. Pavel's ideas are radical, but sensible if you think them through and apply them carefully.

His joint mobility drills alone are worth the price. Much of this book is geared towards the elite athlete who is already far along the learning curve. Nevertheless, as a reasonably in shape middle-aged guy with increasingly creaky joints, I found this book to be an invaluable resource. Buy the book and the video. You'll get your money's worth."

-Kenneth W. Robinson

"Pavel's stretching protocol should be considered the first, last, and only choice for athletes, full-contact fighters, and sedentary folks alike for achieving maximum results in minimal time. This system actually teaches you how to reset the neuro-muscular control of your muscles! No kidding, by following the specialized methods in this book, even an untrained, middle aged man can achieve FULL SPLITS in less than half a year... fighters will learn specialized kicking drills and "dynamic flexibility" drills that greatly improve the velocity and destructive power of your kicks while at the same time protecting the knee ligaments from injury—even if you miss a full-power kick!

I am shocked and amazed at the quality of the results that his training methods have produced for me. And in so little time! There is something here for everyone, and I give this book (and all Pavel's books) my highest recommendation. Truly, a masterpiece that belongs in every athlete's collection."

—Sean Wuyams, Long Beach, NY

"This book is well written (even a little funny!) and has some great info about stretching. It dispels a lot of classic stretching myths and gives some good solid approaches to achieving better flexibility. It's helping me become more flexible a lot faster than I was progressing using the "classical" approach. It's a must for martial artists! Check it out."

- Chris Feilitteri, Upiana, CA

"Lots of useful information on improving flexibility and avoiding injury. I like Pavel's no-nonsense writing style. I got immediate benefits from reading it!"

- Bill Gillis, Boston, MA

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Foreword

Dear Comrade:

The readers of my earlier work *Beyond Stretching* have reported great gains in their flexibility. They also noted that some of the exercises were not very user-friendly and were difficult to organize into a personal program.

Not any more.

In the three years since the release of *Beyond Stretching* I have given many flexibility seminars to a variety of groups, ranging from mere mortals to elite martial artists and SWAT officers. However, I did not just teach, I also learned from my students. I presented a large volume of material from a great variety of sources and countries. The information ranged from the latest academic research, to the intuitive discoveries of esoteric martial arts.

I watched what clicked and ruthlessly eliminated the exercises and techniques that were either difficult to learn or less than maximally effective. The result is *Relax into Stretch: Instant Flexibility through Mastering Muscle Tension*, your friendly new shortcut to having the flexibility of a mutant.

— Faver Tsatscumre, Master et Sperts January 2001, Santa Mornea, Canterna



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Relax into Stretch delivers instant flexibility!

Stretching is <u>NOT</u> the best way to become flexible!

Honest ignorance is better than simulated understanding.

—Juga Biasictto, Fh.D., sports scientist, wona champion powenitter

Stretching in America is a cult. Every fitness-junkie guru preaches flexibility. They growl, they drool and they promise hell to the infidels who don't or won't stretch. Yet the stretching methods they offer are at best laughable, at worst dangerous.

Americans lose flexibility as they grow older because they are used to relying on the elasticity of their tissues. A lifetime of activity builds up microtrauma in our muscles, tendons and fascia. When it heals, a scar is formed. It pulls the wound together, making the muscle shorter. Some American doctors believe that relaxed stretching after exercise can prevent the muscle from healing at a shorter length. That point of view gives credibility to some sick stretching methods.

I heard that sumo wrestlers used to assume their deepest split position, then have their sensei jump on their thighs to rip the tissues and bring the big boy down to a full split. In a few weeks or months the ground meat supposedly healed at a new length and splits were no longer a problem. I do not know if someone was pulling my leg with this story, but I do know an aerobic instructor who purposefully tears her hamstrings by overstretching them, then spends hours in that position to insure that the muscles will heal at a new, greater, length. Sick—very sick.

Even if you could prevent the muscle from shortening—and that is questionable—a stiffening of the tendons and ligaments is certain. "There isn't an exercise that can prevent the aging of connective tissues. It's as certain as radioactive decay," quipped Academician Nikolay Amosov from the former USSR.

Ligaments and tendons are made of collagen, which gives them strength, and elastin, which, as its name implies, provides elasticity. As you age, the elastin/collagen ratio changes in favor of collagen, or scar tissue. If you relied on tissue elasticity for flexibility, you can kiss your flexibility good-bye. And if you put up a fight and try to literally stretch yourself, change the mechanical properties of your muscles, tendons and ligaments, your desperate attempts will bring more injuries than flexibility.

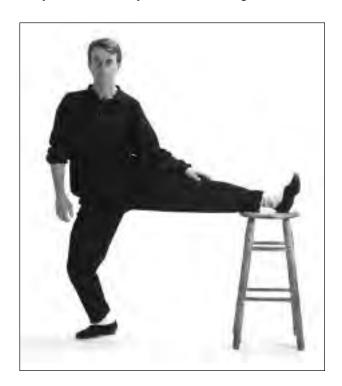
Why traditional stretching failed you, or 'garbage in, garbage out'

The traditional Western approach to flexibility has failed because it started with the assumption that muscles and connective tissues need to be physically stretched. Other myths snowball from there. Hackers have a saying, "Garbage in, garbage out." If the premise is false, all the conclusions will be wrong, no matter how sterling is the logic leading up to them.

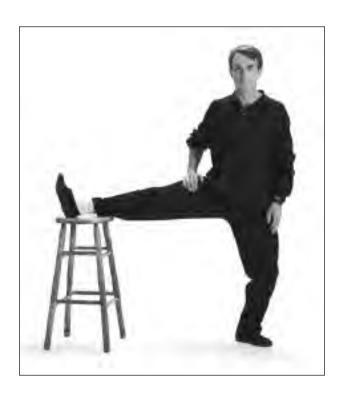
Let it sink in: the premise that you need to stretch if you want to be flexible is wrong.

Ugh? How can it be?

Try this test. Can you extend one leg to the side at a ninety-degree angle?



Your leg that is up on the table is now in the position for a side split. Now do it with the other leg:



So, what stops you from spreading both legs at the same time and doing what Americans call 'the Russian split' and Russian ballet dancers call 'the dead split'?



No chuckles of 'simulated understanding', please, Comrade!

No, it has nothing to do with your 'short muscles'.

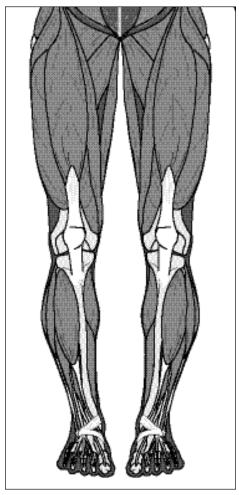
Listen to this: no muscles run from one leg to the other. No tendons, no ligaments, nothing but skin. Like the wheels on your Land Rover, your legs boast independent suspension. That means you should be able to bring the other leg out at the same angle and do a split without stretching a thing.

So why can't you?

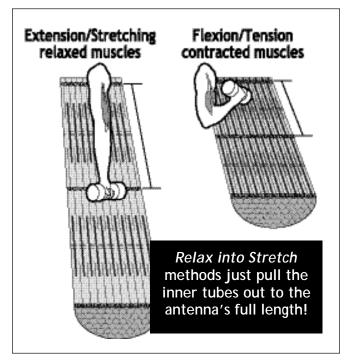
Fear. Tension. The muscles tighten up and resist lengthening. Russian scientists call it *antagonist passive insufficiency*.

Based on your previous experiences—sitting all day or performing monotonous labor, or exercising incorrectly—your nervous system has picked the favorite length for every one of your muscles and prefers to keep it that way. Whenever you reach too far compared to this standard, the *stretch reflex* kicks in and reins your muscles in.

If you try something really aggressive that you have never done before—for instance splits—the stretch reflex panics and stiffens up your muscles with all its might.



Comrade, it is not short muscles and connective tissues that make you tight; it is your nervous system, 'the muscle software' that refuses to let your muscles to slide out to their true full length! A muscle with pre-Depression connective tissues and more scars than a prize fighter is still long enough to display as much flexibility as allowed by its associated joints. Master the muscular tension—and you will be as flexible as you want to be, at any age.



If you compare your muscle to a telescopic antenna, conventional stretching mangles the outer tube in a vain attempt to elongate it. In contrast, *Relax into Stretch* methods just pull the inner tubes out to the antenna's full length!

Reclaim the buoyant flexibility of your youth—and more

In order to get super flexible you must do three things.

1) Trick your muscles into relaxation with various natural reflexes.

A reflex is your body's automatic response to some stimulus. For example, the stretch reflex that contracts your muscles in response to stretching is not voluntary, 'it just happens'. The human organism sports many such reflexes that make your life easier by responding to various standard situations without calling the HQ, or your brain, for every stupid thing. To give you another example, blinking in response to fast movement near your face is a reflex that protects your eyes. You get the idea.

The reflexes form a hierarchy where some of them may override others because they have more 'stripes'. *Relax into Stretch* teaches you how to inhibit the stretch reflex with other reflexes that are higher up in the food chain.

2) Convince your nervous system that the new range of motion is safe.

The first step has taken you there half way. Once your muscles have been duped into relaxing against their will, they will face the music. Your stretch reflex will think, "Hey, the muscle is longer but it hasn't ripped in half! This isn't as bad as I thought."

Now make sure to progress at a very conservative pace. Pay constant attention to a sense of safety in your stretching, to keep your nervous system relaxed and happy. If you do not feel safe in some precarious position, your muscles will refuse to relax.

Building strength in the stretched position will also go a long way towards confidently releasing your muscles into a super stretch.

3) Create the new 'habitual' muscle length.

There are two ways to create a new habit: extensive and intensive.

A good example of extensive learning is memorizing your boss's phone number after you have dialed it a hundred times. Contrast that with the instant filing away of the phone number of a traffic-stopping lady you have just met. It sure worked for me when I met my future wife.

Applied to stretching, extensive learning refers to holding the final stretched out position for as long as you can stand it. Repetition will reset the standard of length. The intensive method calls for brief but intense stimulation with powerful techniques that involve intense muscular contraction. To get the best effect, both extensive and intensive methods are employed.

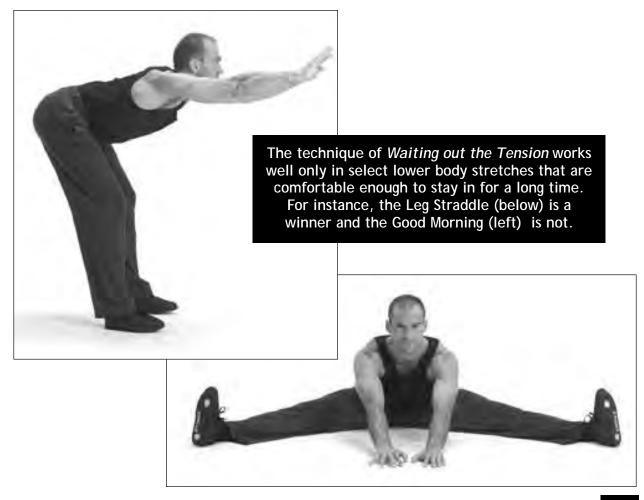
Once you do all of the above—full splits are yours!

Waiting out the Tension—relaxed stretching as it should be

The most obvious way to control muscular tension is ... well, just relax.

Get in a comfortably stretched position and stay in it until your muscles relax. It usually takes a couple of minutes—although timing yourself is a decidedly bad idea. The relaxation time will vary greatly depending on your training level, fatigue, stress, the given muscle group, and many other variables. Just listen to your body.

The technique of *Waiting out the Tension* works well only in select lower body stretches that are comfortable enough to stay in for a long time. For instance, the Leg Straddle is a winner and the Good Morning is not.



Once the muscle has relaxed, increase the stretch. Your muscles will tighten up again. One more time, wait the tension out. Breathe deep, easy, and slow. Repeat until you are close to getting spasms.

If you paid attention, you have understood that what has been described is not the literal stretching of a relaxed muscle, but rather a patient waiting for the muscle to relax and picking up the slack.

Your reflexes, like everything else in your body, get tired.

When the doctor taps your quad tendon with a hammer, your leg kicks out and the muscle gets stretched. If the doctor persisted at whacking you under your kneecap, your kicks would get progressively weaker and weaker until the hammer could not get a rise out of you at all. By the same token, if your muscles tighten up once you have assumed a stretched position, you can wait the stretch reflex out.

This involuntary neural mechanism is what makes your muscles resist the stretch. If you stay down long enough, usually a couple of minutes, the stretch reflex will get tired of firing up your muscles, allowing them to finally relax. Now it is time to carefully increase the range of motion until the muscles start resisting, and repeat the process... You may massage the stretched muscles and/or gently 'twitch' them once in a while to help the relaxation process and ease the discomfort.

If you would like to know why these maneuvers help, read my book *Fast & Loose!: Russian Champions' Dynamic Relaxation Secrets.*

While many Russians and Orientals have been successful with *Waiting out the Tension*, I believe that Americans are generally not patient enough to stretch in this manner. No offense intended, just a cultural observation. You guys tend to get eager and start forcing the muscle into more stretch. The results are injuries and zero progress. Perhaps you will overcome your busy nature by following the example of world champion kickboxer Bill 'Superfoot' Wallace who stretches at night in front of the TV when he is not in a hurry and does not feel competitive.

From personal experience I can tell you that you should never, ever stretch when you are tight on time, no pun intended. Rushing through your stretches makes it impossible to relax, delivers no gains, and almost guarantees injuries.

Do not abuse relaxed stretches and stay away from them altogether when it comes to your back. Soviet sports scientist L. P. Orlov warns: "While most large joints are stabilized by muscles and the ligaments do not affect their position, in the case of the spine it is the ligaments that play the important role of maintaining the normal spinal alignment. Insufficiency of the ligamentous apparatus makes it difficult to maintain the normal spinal curve with muscle tonus and tension alone. Weakening of the ligaments unavoidably leads to deformation of the spinal column."

In other words, don't do relaxed stretches for forward flexion of your spine or toe touching.

And make sure that *Waiting out the Tension* is not the only stretching method you employ. "Flexibility must always be in a certain relationship with strength," Orlov states—and unlike *Forced Relaxation* and other specialized techniques you are about to learn, *Waiting out the Tension* does not develop strength.

Finally, if you insist on doing relaxed stretches, remember the words of a famous Russian coach who said that in sports conditioning—as in an intimate situation—trying too hard just dooms one to failure. Do not will your muscles to relax. Let it happen.

Waiting out the Tension

- Get in a comfortably stretched position and patiently stay in it for a few minutes until your muscles relax.
- Increase the stretch. Your muscles will tighten up again. One more time, wait the tension out. Breathe deep and easy. Repeat until you are close to getting spasms.
- You may massage the stretched muscles and/or gently 'twitch' them once in a while to help the relaxation process and ease the discomfort.
- The technique of *Waiting out the Tension* works well only in select stretches that are comfortable enough to stay in for a long time.
- Never use the Waiting out the Tension for forward spine flexion or toe touching type stretches
- Don't get eager and start forcing the muscle into more stretch.
- Never stretch when you are in a hurry
- Don't apply the Waiting out the Tension technique to your back.

A split, a fire walk, an act of faith...

Victor Popenko's 1994 book *Flexibility, Strength, Endurance*, became a bestseller among the Russian Mafia enforcers, who pride themselves on being the best-conditioned bad guys in the world. Popenko writes:

"The key to mobility is relaxation. Usually the body possesses great stretching reserves but the stretched muscle is resisting by trying to contract, and this resistance must be overcome with the psychological mindset on relaxation.

Stretching exercises must be performed slowly and carefully, with a fixation of the stretched position for a minute or so. While holding the stretch all your intentions should be on relaxation, a reduction of tension in the stretched muscles. Such mental concentration enables one to reach stunning results.

Appropriate images and pictures sometimes help the relaxation mindset. For example, imagine that your legs are the ends of a rope easily spread apart as you perform a split. Visualizing heat is very helpful. Mentally wrap the spot with most muscular tension with a hot towel in a few layers. As this hot application heats up, the muscle softens up and relaxes.

Be persistent in your desire to relax the stretched muscles. Every time you succeed, you have succeeded in stretching yourself a little further."

A suspended side split, like a fire walk, is an act of faith. This is not psychobabble, this is a fact.

There is an intimate connection between the limbic system, which governs the emotions, and the neural networks that govern muscular length and tension. Scientific studies show that fear and anxiety, as well as pain, reduce flexibility.

With that in mind, maximize the safety of your stretches—and their *perceived* safety. If it takes three chairs, a step stool, and a spotter to make you feel safe during your splits—so be it. The reasons for your fear may not be real, but it wipes out your flexibility for real just the same.

If you do not believe that you can do a wishbone, you never will. And vice versa. Confidence and yoga-like tranquility allow extreme flexibility to happen.

Although not a must, various tools for relaxing the body and the mind from sports psychology and Oriental self-improvement disciplines—such as the *Jacobson's Progressive Relaxation Technique* and *Chi Kung* meditation, will ease your ascension to the rank of superflexible mutants. The unique vibration drills of Russian champions from my book and tape *Fast & Loose!* are guaranteed to be of great help.

Another relaxation tip. Drs. Yuri Verkhoshansky and Mel Siff, renowned sports scientists and the authors of *Supertraining*, advise controlling muscular tension in the face and hands, because it reflects overall tension. Indeed, your face and your hands have a much greater nerve supply than the rest of the body—you could say that they own the controlling interest in your relaxation stock.

Relaxation Tips

- Focus your intentions on the relaxation of your muscles and mind.
- Appropriate visualizations, for example heat, help relaxation.
- Anxiety and pain reduce flexibility. Reduce them by progressing at a comfortable pace and maximizing the safety of your stretches.
- Consider taking up meditation, the Jacobson's Progressive Relaxation Technique, or some other relaxation technique from sports psychology and Oriental self-improvement disciplines. The vibration and passive movement drills from Fast & Loose! are awesome.
- Control muscular tension in the face and hands because it reflects overall tension. Literally 'wipe' the tension off your face with your palms, slowly and firmly, from top to bottom.

Proprioceptive Neuromuscular Facilitation—if you can spell it, splits ought to be a piece of cake!

A more proactive way to relax the muscle into the stretch is *proprioceptive neuromuscular facilitation*, a spelling test nightmare from the physical therapists' arsenal.

Developed by the American Dr. Henry Kabat, half a century ago, PNF works by fooling your stretch reflex. Here you are, stretched out to what your body thinks is the limit. The muscle does not seem to be able to get any tenser. Yet you make it happen by flexing it.

Everything in this world is relative. What felt maximally tense before the contraction, does not feel quite as tight in the aftermath. You eke out a little more stretch.

Put more scientifically: Contracting a muscle inhibits the stretch reflex in this muscle, via an element in your spinal cord called a *Renshaw cell*. Essentially the *Renshaw cell* tells the stretch reflex, "Hey, don't panic, man! The muscle is already contracting, no sense in overdoing it."

It has been known since Russian dog abuser Pavlov's times that neural processes are inert—they respond to stuff with some delay. They are like those dull-witted comrades whom we called 'brakes'in the Russian military.

Applied to stretching, this means that after you terminate a contraction, the stretch reflex in the given muscle will still be temporarily suppressed—and the muscle will not resist stretching much. At least for a little while. The window of opportunity is narrow: studies show that the muscle's resistance to stretch is minimal within the first second after the contraction; by the fifth second it is up to 70% of the initial tension, then it is back to square one.

To sum up the standard PNF technique, contract the stretched muscle for the specified duration, anywhere from a second to a few minutes, then relax it, and immediately—understand the difference between 'immediately'and 'rapidly' for your own good!—stretch the temporarily cooperating muscle a little further.

If you prefer a less geeky term than PNF, you may call any technique that involves pre-tensing of the stretched muscle *contract-relax stretching* or *isometric stretching*.

Isometric stretching rules!

Contract-relax stretching is documented to be at least 267% more effective than conventional relaxed stretching! In addition to fooling the stretch reflex in the manner just described, isometric stretches enhance your flexibility by making you stronger in the stretched position.

Relaxed stretching develops flexibility without strength. This is unnatural. Normally your body does not allow a range of motion it cannot control. A graphic illustration of this is a medical condition known as the 'frozen shoulder'. If, after an injury, you do not use your shoulder for a long time, it will lose much of its range of motion. Under anesthesia though, the surgeon can turn the shoulder through three hundred sixty degrees without trouble.

When the patient wakes up and his muscles start working, the shoulder freezes again. The nervous system knows that the muscles are not strong enough to control the full range motion and will not let the shoulder's owner have it. Without proper rehab the problem keeps feeding on itself. Physical therapists know that muscles habitually kept in a shortened position lose their strength in the stretched position. Before you know it, the weakness-inflexibility vicious circle turns you into a piece of furniture!

The same situation, albeit less extreme, repeats itself with every Joe or Jane when they work out improperly—or are simply inathletic. Your muscles keep losing their strength in the lengthened position—if they ever had it to start with—because your lifestyle always keeps them shortened. Physical therapists call this problem 'tight weakness'. As strength goes south, so does flexibility. The muscles become even shorter which makes them even weaker which makes them even shorter... ad nauseam.

And vice versa. When you become stronger in the extreme range of motion through contract-relax stretching, you send the message to your body that you will not be stuck in that position because you now have the strength to recover from it. Your muscles do not undergo a reflexive contraction since your nervous system perceives the stretch as safe. Your flexibility increases.

The obvious way to develop extreme range strength is by lifting weights but it is not always practical. You get stronger primarily at the angles where you train. If you can do full one hundred eighty-degree splits, it is worthless to use a health club adductor/abductor machine limited to one hundred and twenty degrees.

Isometrics is more practical than weights. You are probably familiar with isometric strength training. It was very popular in the fifties and sixties. You had to push against things that didn't budge, like walls, doorways, or trucks. Your muscles contracted but no movement took place. Isometrics is a very powerful tool for strength development, despite being out of favor and receiving much unjust criticism in the last few decades.

John Ziegler, M.D., one of the pioneers of isometric strength training, explained how it works: "...the way you improve is by lifting weights, the heaviest possible. What's the heaviest weight you can lift?—One you can't lift!"

To develop strength-flexibility with isometrics, stretch as far as you can, then flex the stretched muscle. Sounds just like isometric stretching, doesn't it?

Extreme flexibility through Contrast Breathing

The effectiveness of conventional PNF can be dramatically increased through proper breathing. Take a lesson from Chi Kung, Tai Chi and Yoga. Masters of these Oriental disciplines put heavy emphasis on breathing exercises that leads to remarkable mastery of the body and mind. Here is why.

Your nervous system is subdivided into *voluntary*, which is in charge of things like lifting your arm or chewing your cheeseburger, and *autonomic*, which quietly runs things that are none of your business, like digesting that cheeseburger.

Breathing is the only function you can control both consciously and unconsciously because it is regulated by both branches of the nervous system through two independent sets of nerves. By controlling your breathing, you can control some of your body's functions that were never meant to be controlled voluntarily, like your heart rate.

Note how forcing yourself to 'take a deep breath' when you freak out helps to calm you down. Because deep, relaxed breathing is incompatible with a stressed out mind, your body adjusts its physiology to your breathing via a feedback loop! Quoting Harvard M. D. and alternative medicine guru Andrew Weil, "Breathing is the bridge between mind and body, the connection between consciousness and unconsciousness."

Here is how you can breathe your way to greater flexibility. Get in the position of a comfortable stretch, placing some weight on the muscles you are stretching.

Inhale maximally and tighten up your entire body, especially the target muscles.

The deepest relaxation can only be achieved in contrast to great tension—the yin and yang of stretching, so to say. Or, if you prefer the Marxist terminology, 'the unity and antagonism of the polarities'.

Think of your body as a fist. Literally making a fist will help. Pay attention not to decrease the amount of stretch when you are tightening up!

Hold your breath—and tension—for a second or so, then suddenly let it all out with a sigh of relief. Let your jaw and shoulders go limp with the rest of your body. Let your fists and face play dead. Turn your whole body into what Soviet psychologist Dr. Vladimir Levi called 'a mentally relaxed fist'.

Visualize transforming from a tight spring into a limp noodle in a blink of an eye. A burst balloon is another useful analogy. Or try this vivid description of the tension/release sequence by Dr. Judd Biasiotto:

"You must relax instantly. To better illustrate what it would feel like to "turn off" as you have been instructed, picture yourself exerting all your strength in an effort to push a large boulder off a sheer cliff. When suddenly the boulder goes over the edge, there is no active resistance to your pushing and all your straining suddenly ceases. It is that feeling, that nothingness after the boulder drops, that you are striving to obtain when you "turn off your source of power."

At this point the stretch will increase, as the involved body parts will drop down when the tension is released. To make your stretches safer, don't let the body parts drop more than an inch or so at a time. Keep repeating the drill until you can no longer increase your range of motion.

Because you are taking deep breaths, you are apt to hyperventilate. Don't. In addition to making you dizzy, washing too much carbon dioxide out of your system, by breathing too much, will excite your nervous system. While powerlifters like to take advantage of this phenomenon when psyching up for a heavy attempt, it will make it harder for you to relax. A simple way to handle the problem is to postpone the inhalation by a couple of seconds following each exhalation: hold your 'no-breath'.

Contrast Breathing is by far the easiest and least uncomfortable variation of contract-relax stretching. Obviously, if it gets you to your goals, Contrast Breathing is the approach of choice. If not—read on!

Contrast Breathing

- Inhale maximally and tighten up your entire body, especially the muscles you are about to stretch. Think of your body as a fist. Literally making a fist will help.
- Pay attention not to decrease the amount of stretch when you are tightening up!
- Hold your breath—and tension—for a second or so, then suddenly let it
 all out with a sigh of relief. Let your jaw and shoulders go limp with
 the rest of your body. Let your fists and face play dead. Turn your
 whole body into 'a mentally relaxed fist'.
- The stretch will increase as the involved body parts drop down when the tension is released. **Don't** let them drop more than an inch or so at a time, to make your stretches safer.
- With the exception of the forward bending backstretches, you may stay in the relaxed position for awhile before the next contraction.
- Keep repeating the sequence until you can no longer increase your range of motion.
- Don't hyperventilate, or take in too much air. Compensate for deep breaths by breathing less frequently; hold the 'no-breath' for a couple of seconds following each exhalation.
- You can expand your understanding of the pneumo-muscular reflex and the effect of breathing on muscle tension by reading *Power to the People!*: Russian Strength Secrets for Every American.

Forced Relaxation—the Russian spirit of stretching

Although the primitive standard PNF protocol does improve flexibility better than conventional relaxed stretching—and builds some strength in the process—there are tricks of the trade that turn the contract-relax approach into a thermonuclear stretching weapon!

Take 'Forced Relaxation', an oxymoronic technique which should have been invented by the Russian military. Get into the stretch, then contract the specified muscles with one to two thirds of your maximum effort. Hold steady, unwavering tension—it is extremely important! If you were holding a real weight with the target muscle, the weight would stay put rather than bob up and down.

Don't hold your breath. Breathe, but breathe shallow. Deep breathing will wave the tension in the stretched muscle up and down with every breath, something we are trying to avoid.

Hold the tension until it becomes unbearable, then release it with a sigh of relief—don't let the breath get 'caught' in your chest, as is common for a very stressed out person, let go! —and immediately increase the stretch.

If you have the mental fortitude, keep the tension until your muscles start quivering and finally collapse in exhaustion, unable to contract any longer! This is the essence of *Forced Relaxation*. Aptly named, isn't it? As we used to say in the Soviet Special Forces, "If you don't know how—we'll teach you, if you don't want to—we'll make you."

How long will you have to hold? It is hard to tell. Fifteen seconds, thirty seconds, a minute, even more. It depends on a whole lot of variables: the intensity of the contraction, your pain tolerance, and the muscle fiber type.

Drs. Verkhoshansky and Siff point out in *Supertraining* that "...prolonged muscle contraction would tend to be more easily maintained in slow postural (tonic) than in fast (phasic) muscles. Consequently, stretching procedures would have to be applied for longer periods on slow muscles to significantly enhance their flexibility."

No, you do not need a biopsy to determine the fast/slow fiber composition of your various muscles. Trial and error will do. Over a period of time you will find your sweet spot. For instance, you may observe that your hamstrings relax just fine after ten second contractions—while your hip flexors need a solid minute of tension before they are forced into exhaustion.

Forced Relaxation

- Stretch as far as comfortably possible and contract the muscles you are about to stretch with one to two thirds of your maximum effort.
- Tension should increase gradually and reach its peak by the third or fourth second. **Don't** contract the stretched muscles explosively!
- Hold steady, unwavering tension. If you were holding a real weight with the target muscle, the weight would stay put rather than bob up and down.
- Don't hold your breath, breathe shallow.
- Hold the tension until it becomes unbearable, then release it with a sigh of relief—don't let the breath get 'caught' in your chest as is common for a very stressed out person; let go! —and immediately increase the stretch.
- Understand that 'immediately' means 'without delay' rather than 'with quick movement'!
- The duration of the contraction may vary from five seconds to five minutes. Find your sweet spot through trial and error. Start with thirty to sixty second contractions.
- If you have the mental fortitude, keep the tension until your muscles start quivering and finally collapse in exhaustion, unable to contract any longer.
- Use your head (duh!)

The final frontier: why Clasp Knife stretches will work when everything else fails

I feel your pain, my fellow Americans.

—But Curitari

A kickboxer who had practiced mainstream PNF diligently for years came to me as the last resort. He was only three inches off the ground in the side split, yet never got any deeper. 'Experts' had told him it was not meant to be, he was not built for splits and too old. With the variation of isometric stretching described in this chapter, I put him in a full Russian split in ten minutes, screams notwithstanding.

This powerful variation of isometric stretching, 'the Clasp Knife' method, does not bother tricking the stretch reflex; it aggressively cancels it out!

The *Clasp Knife* takes advantage of nasty muscle software called the *inverse stretch reflex*. It does not take an Einstein to figure out that if the stretch reflex makes the muscles contract, its counterpart makes them relax. You have run across the inverse stretch reflex's dirty work when you got whipped in arm wrestling. One moment your biceps is super tense—the next it turns to jello. Some neuroscientists and physical therapists liken this process to a jackknife's blade suddenly giving way—hence 'Clasp Knife' stretching.

Where *Forced Relaxation* exhausted your muscles into submission, the *Clasp Knife* takes them by storm.

The inverse stretch reflex is the last line of defense against injuries. It takes over where the stretch reflex leaves off. As the muscle is fighting an overwhelming force it gets very tense. The tension sensors—the *III and IV afferent free nerve endings* and the *Golgi tendon organs*—send a 'Relax!' command to their muscle, to prevent it from ripping its tendons off their attachments.

Now, stop mumbling, "Is it safe, is it safe?" You sound like the Nazi dentist from *The Marathon Man*. The good news is that the shutdown threshold is set up very conservatively. Much more force is needed for the tissue to rupture than it takes to make your biceps give out; a tendon is usually two to three times stronger than its muscle!

Although it feels weird and scary—your overpowered muscles start shaking and finally give out against overwhelming resistance—the inverse stretch reflex overrides the stretch reflex and promotes a very deep relaxation of the tortured muscle.

What you get is a mega-stretching tool—for those with the heart to handle it.

The Clasp Knife—or 'shutdown threshold isometrics' as it was referred to it in my earlier book—trigger the inverse stretch reflex to relax a muscle so you can then stretch it. The half-hearted contractions practiced by most physical therapists are way too wimpy to trigger the clasp knife effect.

Eastern European experts state that the Golgi tendon organs with the highest threshold cause the greatest relaxation. That means muscle tension must be extremely high. You must put weight on the stretched muscles and contract them to the hilt. It is very painful—scream your heart out!

East German specialists Drs. J. Hartmann and H. Tunnemann recommended seven second long powerful contractions alternated with six second relaxations when one aims to set off the Golgi tendon reflex. Russian scientist Dr. Leonid Matveyev advises five to six second long contractions and emphasizes that tension should increase gradually and reach its peak by the third or fourth second. A rapid buildup of tension in a stretch may result in an injury.

"Have the strength to force the moment to its crisis." These words by Thomas Stearns Eliot could be the motto of this super stretching technique.

The Clasp Knife

- Stretch as far as comfortably possible and contract the muscles you are about to stretch with a near maximum effort.
- Tension should increase gradually and reach its peak by the third or fourth second. Don't contract the stretched muscles explosively!
- Don't hold your breath, breathe shallow during the contraction.
- Hold steady high tension for five to seven seconds or so until your overpowered muscles start shaking and finally give out. If the muscles do not collapse—it may take some practice—release the tension voluntarily.
- Let out a sigh of relief identical to the one used in *Contrast Breathing* as you release the tension.
- Increase the stretch, carefully but without delay.
- Stay relaxed for five to seven seconds and repeat the sequence.
- Exercise good judgement.

Why you should not stretch your ligaments—and how you can tell if you are

I repeat, stretching the ligaments is unnecessary even for the performance of the most advanced gymnastic or martial arts skills! Your muscles have plenty of length to allow you to do splits, you just have to learn how to relax them.

Stay away from this kind of stretch

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You can accomplish the splits—even

the suspended wishbone—by reeducating the nervous system. But some Yoga asanas—the goraksha asana, the sakthi chalini, the khanda peeda asana, the gomukhasana to name a few—can only be performed by

stretching the ligaments. The same goes for some popular Western stretches, including the notorious hurdler's stretch. Stay the hell away from them! They offer no athletic benefits whatsoever—at least not for our species.

Ligaments hold your joints together. They do not stretch well, except in children. Stretch a ligament by only six percent and it will tear. Even if you manage to stretch it without ripping it, do not consider yourself lucky. A

ligament that has been subjected to excessive stretching undergoes microtears, gets scarred up, elongated, and weakened: a so-called plastic deformity. A stretched ligament means a loose and unstable joint just waiting for a severe injury. Or osteoarthritis; joint hypermobility leads to degenerative changes in the cartilage padding the joint.

How can you tell if you are stretching a ligament?

If you feel discomfort or pain in the joint, you are probably doing it. For example, your hamstrings meet their tendons a few inches above your knees. If you feel a pull in the back of your knee during a hamstring stretch, obviously you are loading the ligaments and joint capsules rather than stretching your hammies. The solution is to bend the knee slightly to unload the ligaments and refocus the stretch on the area between your glutes and a hand's width above your knees.

The normal sensations during proper flexibility training are muscle tension—which may be painful.

Stretching when injured

Rehabilitation is not my area of expertise. Over the years I have learned to talk only about the things that I know something about, so I'll keep it brief. I will also limit my reflected rehab advice to minor muscle tears—everything else is your doctor's problem.

In one sentence, RICE it, then stretch it. I will not babble about RICE—Rest, Ice, Compression and Elevation—because everybody else does. On to stretching.

Do it. ASAP, certainly within 24 hours. When a muscle tears, so do blood vessels. Internal bleeding causes the muscle to contract, a typical reaction to any foreign matter.

When a muscle gets injured, it retreats into spasm—just in case. This creates a couple of problems. First, healing takes forever. Hypertonicity restricts circulation. This is a useful feature immediately after the injury, to keep the swelling down, but counterproductive after a day or two.

Second, as a result of limited blood supply and inactivity, the muscle atrophies. And third, flexibility is lost. When a muscle spends much time in a shortened position, the stretch reflex becomes overly sensitive. A shorter muscle length and excessive tonus become the norm.

A weaker and tighter muscle will lead to more problems down the line. It is likely to get reinjured, and so are other, healthy, muscles, as a result of imbalance or compensation.

So stretch the damn thing! Find whatever hurts the most and do it, stopping just short of PAIN, in caps. Rehab is a cliche business—no pain, no gain.

Contract-relax stretching is very effective in relieving tension, regardless of its source. A form of strength training, it also helps to prevent muscle atrophy. Lay off the evil stuff like the *Clasp Knife* for awhile and stick to low intensity *Contrast Breathing* or *Forced Relaxation*. Do it many times throughout the day. Really focus on contracting and releasing the injured spot. You may apply pressure with your knuckles or fingertips as you flex the hurting unit.

Keep in mind that stretching is not a panacea, especially for the back. Those of you with bad backs, and if statistics do not lie, it is every other American, note on your forehead: stretching will relieve the pain, but will not fix you up.

Spasms and pain are only symptoms. The real problem is usually weakness. A weak back muscle has to contract hard just to keep you from walking on all fours—spinal erectors are 'anti-gravity muscles'. This tension is difficult to maintain, so the muscle just locks up. Movement and circulation become limited, so it gets even weaker, so it cramps even more to get even weaker to cramp even more... It's a vicious circle.

Conclusion: trying to fix a bad back with stretching is about as useful as an oil change on the *Titanic*. You'd better get on the first name basis with deadlifts. Power to the People!: *Russian Strength Secrets for Every American* will show you how.

The demographics of stretching

Your age and sex dictates your choice of stretching exercises, even more than your sports and activities. It is unfortunate that youth coaches and other people who should know better do not appreciate this simple fact.

Take girls' gymnastics, for instance. Russian scientist V. I. Fillipovich explains in his *Gymnastics Theory and Methodology* textbook:

"The obvious ease with which girl gymnasts master different exercises requiring maximal flexibility frequently encourage forcing the process of this quality's development. Its negative influence may not show immediately. Excessive emphasis on flexibility in young age may negatively affect the joints' strength, lead to a variety of spine deformities and have an unhealthy effect on postural development.

Flexibility development must be gradual. One must keep in mind that girl gymnasts frequently have a so-called active insufficiency. They cannot reach a great range of motion not for the lack of elasticity of the muscles and ligaments, but because of insufficient strength of the muscles that propel the movement. In other words, the existing anatomical mobility of the joints cannot be fully taken advantage of. It becomes quite obvious that one must work on simultaneous strength and flexibility development to reach a maximal movement amplitude."

Young girls should concentrate on the active stretches covered in my *Super Joints* book and video, sometimes to the exclusion of other methods.

Fillipovich goes as far as to state that children younger than ten or eleven, girls and boys, should not do any passive stretching at all; no contract-relax, no relaxed stretching, nothing of the sort!

It also makes sense from the psychological point of view: youngsters just do not have the patience and body control necessary for sophisticated methods such as *Forced Relaxation* or tedious ones such as *Waiting out the Tension*.

When it comes to kids, Fillipovich and other Soviet specialists especially warn against overstretching seven to ten year olds' shoulders—that includes pulling Junior by his arm when you are rushing him to the yellow bus—and spines, which are very vulnerable at this age.

In fact, until ten or eleven your gremlins should stay away from various forward and especially backward bends. Generally kids can be more aggressive with their hip and ankle joints though.

Youngsters should also be careful in their stretching and other athletic pursuits when undergoing the growth spurt. Adolescent hormones try their best to keep the ligaments pliable to accommodate the mushrooming bones, but the best is not always good enough.

Women who are pregnant, or who have had a child within a few months, should be especially careful with stretching. They should seek their doctor's advice. Delivery of a child requires extraordinary flexibility and the woman's body releases the hormone *relaxin* to loosen the ligaments. Relaxin is not selective, all the ligaments are affected. They will not tear easily, but will stretch beyond the norm leading to joint instability.

Most adults should focus on the contract-relax drills from this book to teach their stiff muscles to yield to stretches. Older folks also need isometric stretches, but they should emphasize the joint mobility drills from Super Joints. The idea is to lubricate and smooth out grindy joints.

Fast & Loose! is for everyone who wants to be flexible in motion and full of lazy relaxed energy, like a panther.

The details, the schedule

- Top Russian researcher Prof. Matveyev recommends that you perform isometric stretches—that covers *Contrast Breathing, Forced Relaxation*, and the *Clasp Knife*—in three to five sets per stretch four times a week. In my opinion it is a bit excessive. Most comrades will do fine on two to three days a week and two to three sets per stretch. The above is not writ in stone; experiment. It is good idea to make the sets in one workout progressively harder, at least some of the time.
- Do not get too much of a good thing. You are stretching too much, too hard, or too often if you get stiff and sore. Back off if you experience anything beyond very slight soreness the morning after.
- If you are ambitious about your splits, you could try Bill 'Superfoot' Wallace's hardcore stretching schedule: two intense stretching sessions a week and four easy ones. You could stretch isometrically on the two heavy days and wait out the tension on the light days.
- You do not need to do all the stretches on the list. Try them all if your health
 allows it, then pick and choose. Most comrades do not need much upper body
 stretching and should focus on their hamstrings and hip flexors first and
 foremost.
- The order of the stretches is not writ in stone, but you are advised to decompress your spine before stretching the hip flexors and stretch your groin after the hip flexors.
- If you perform the exercises from my other books, *Fast & Loose!* And *Super Joints*, rotate them in the following sequence:

Day 1 Fast & Loose!
Day 2 Relax into Stretch
Day 3 Super Joints

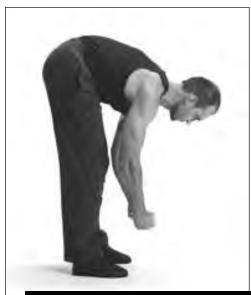
Skip a day whenever you must and continue the rotation. The above recommendations are just the rules of thumb. Sophisticated trainers are encouraged to be creative.

- At least in the beginning you are advised to stay away from the *Clasp Knife technique*; *Contrast Breathing* and *Forced Relaxation* are safer choices.
- "Muscles should not be forced into any stretched position unless they have been previously warmed up through pre-loading," warned East German specialists J. Hartmann and H. Tunnemann. This may be a bit paranoid, but an isometric contraction held for up to a minute indeed brings in a pool of relaxing blood into the muscle. You do not need to do any special warm-ups; they are a total waste of time.
- Isometrics mess with your proprioceptors and impair your coordination for the rest of the day. So don't do them before your sport practice. The rule of thumb is: if you have to do a static stretch before you engage in your sport, you are not ready for the skill you are practicing. There are very few exceptions, for example, shoulder and wrist isometrics before squats for husky powerlifters who cannot get under the bar otherwise.
- Practice your *Relax into Stretch* exercises last, right after your workout or in the end of your day. Do not hit it too close too bed time if you can help it.

The Relax into Stretch drills—a quick reference

1.	The Souped Up Toe Touch p. 49	100	2	3
2.	The Spine Decompression Hang p. 51			
3.	The Improved Cobra p. 54		田田 / 神田	
4.	The Side Bend p. 57	4	5	6
5.	The Spine Rotation p. 60		4	3
6.	The Lateral Neck and Trap Stretch p. 61	11		B
7.	The Headache Buster p. 62	7 /6	9	10
8.	The Anti-Slouch Neck Stretch p. 63	2	30	
9.	The Head Turnerp. 64	E		V
10.	The Chest Opener p. 65	11	12	13
11.	The Overhead Reach p. 67	20/1	A	6
12.	The Biceps and Shoulder Stretch p. 68			
13.	The Shoulder Blade and Lat Stretch . p. 69	14	15	16
14.	The Upper Back Loosener p.71	98	48	64°
15.	The Wrist Flexion p.73			
16.	The Wrist Extension p.74	174	17B	170
17.	The Good Morning Hamstring Stretch	Prince of the second		
	a) standing p.75	I		
	b) seated on a chair p.76	18	19	20
	c) seated on the floor p.77	Sim I		
18.	The Kneeling Hip Flexor Stretch \ldots p.78			
19.	The Lunge Hip Flexor Stretch p.80	21	22	23
20.	The Karate Stance Hip Flexor Stretch . p.82	A	AL.	
21.	The Karate Stance Groin Stretch p.84		23	F
22.	The Seated Groin Stretch p.86	24		
23.	The Calf Stretch p.89	O.		
24.	The Shin and Instep Stretch p.91			

1. The Souped Up Toe Touch



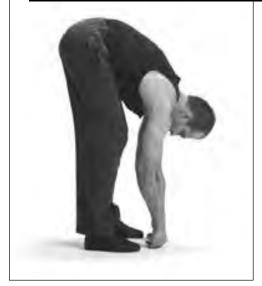
For some Comrades being upside down is hazardous. Ask your doctor if you are one of them.

Slowly bend forward as far as it is comfortable for you. No need to get ambitious yet.

Keep your knees locked or close to it and your weight balanced between your toes and your heels. Keep your head down and do not look up at all for the duration of the stretch.

Inhale—into your stomach if you know how—without popping up like a hydraulic jack. Squeeze your butt as hard as you can—imagine pinching a coin with your cheeks if you have

trouble with that—and make white knuckle fists. Stay there for a second.



Release! —both the tension and the air at the same time. Remember the popped tire effect. If you listened like a good scout your body will drop down a little and stretch your backside: your hamstrings, your glutes, but mostly your lower back.

To fight hyperventilation and dizziness, wait a few moments before you inhale again.

Repeat the drill until you cannot go any deeper or some sort of

discomfort—dizziness, a heavy head, strange sensations in your back, or whatever—hints at curtain time. For some folks being upside down is a plain bad idea; check with your doctor.

Once you have gone as deep as you can for the time being, bend your knees and go into a semi squat before standing up straight. It is essential for your back safety!



Do not stay relaxed for more than a couple of seconds between the contractions or you could overstretch your back ligaments.

Once you have reached your current limit or you have simply had enough, bend your knees and go into a semi squat before standing up straight. It is essential for your back safety!

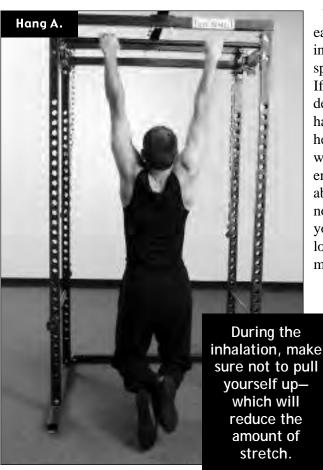
Scientists found that when your spine is hyperflexed or very rounded, the lower back muscles just check out and leave all the work of supporting the spine to the ligaments. It means two things for you, Comrade. First, if you try to get up from the extremely bent over position using your back while keeping your legs straight, you are likely to get hurt. Second, because you are too smart to stretch your ligaments, you will not spend much time hanging relaxed between the contractions.

2. The Spine Decompression Hang

An acquaintance of mine, the chief detective of a police department in one of the former Soviet republics, was self-conscious about his height—or rather lack of it—and took up daily hanging from a pullup bar. His taller wife would wrap her arms and legs around his waist and hang on to him until his grip gave out.

The bizarre exercise paid off: the chap gained over an inch in height after a while.

Sandwiched between the vertebrae, your spinal discs act as shock absorbers. They hold water like sponges to do their job. Unfortunately, never-relenting gravity keeps squeezing the moisture out of them. The discs eventually dry out, get thin and brittle. Your spine shrinks, stiffens up, and becomes more injury prone.



When astronauts return to earth they are a couple of inches taller than before the space flight, thanks to zero G. If NASA is not hiring, decompressing the spine by hanging from a pullup bar, head up, or upside down—as was the rage in the Bee Gees era—will allow the disks to absorb more moisture. It will not only help you reclaim your youthful height but will do a lot for your spinal health and mobility.

Plain old pullup bar hangs are alright, with or without the added weight of your spouse. Throw Contrast Breathing in the mix—and you will be blown away by the difference!

Hang from a pullup bar. If you are not strong enough to support your bodyweight, use one of those health club lat pulldown machines. If you cannot stand health clubs—you are not alone—hook sturdy bungy cords to the rafters in your basement, kneel on a folded towel, and hold on to the rubber bands.



Inhale deep and tighten every muscle in your body making sure that you do not pull yourself up (Hang A).

Hold your breath and the contraction for a moment, then suddenly let all the air go, along with the tension. You will drop and 'get taller' (Hang B).



Repeat. Alternate your grips every time you perform the exercise—palms forward one time, palms back the next time. (Hang C).

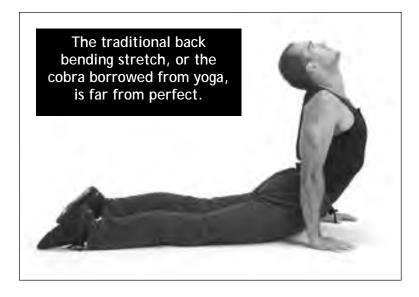
Ideally, you should do this stretch every day throughout the day.

Still, twice a week is better than a slap on the face with a wet fish.

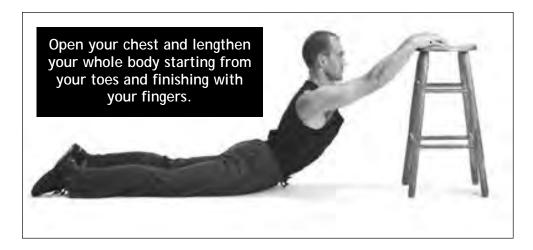
The spine extension and hip flexor stretches—and the splits—will groove a lot smoother, if you precede them with hanging back traction.

Make sure to hang out after lifting weights. A set of hangs after every set of deadlifts makes a healthy addition to the *Power to the People!* strength program.

3. The Improved Cobra



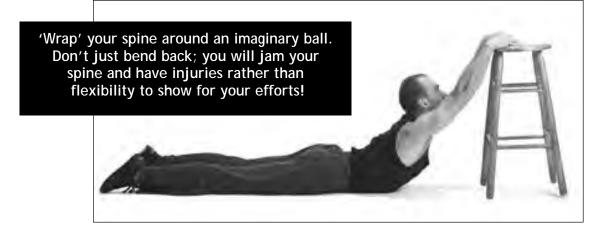
The traditional back bending stretch, or the cobra borrowed from yoga, is far from perfect. First, many comrades, especially ladies, have a hard time supporting their weight in that position and therefore cannot concentrate on the stretch. Second, the length of your arms restricts the amount of stretch. Both problems are easily fixed if, instead of supporting your weight in the pushup position, you place your hands atop an object whose height matches your flexibility—be it a chair, the kitchen counter, or a training partner.





Keep your arms and legs straight, point your toes, and open your chest. Elongate your spine, striving for the sensation you have experienced in the decompression hang. Go beyond stretching your spine; lengthen your whole body starting from your toes and finishing with your fingers. This maneuver opens up the spaces between the vertebrae and gives your discs and facet joints more room to play.

Inhale and flex your butt and abs. Flexing the abs means bracing them for a punch, not sucking them in or sticking them out. If you have a hard time getting it, a punch can be arranged.



Release your breath and tension. Your hips will sag.

The improved cobra is a two-step stretch. The next step is to inhale and 'wrap' your spine around an imaginary ball. Do not just bend back; you will jam your spine and have injuries rather than flexibility to show for your efforts! Unlike thoughtless back bending, 'elongating/wrapping around' does not limit the movement to a couple of lower back hinges but articulates the entire length of your spine. The result: greater flexibility, lower back stress.

Relax for a few seconds and repeat both steps: tension/release, followed by elongation/wrapping around.

It is normal to experience cramps in your back. If you experience discomfort in your spine or sacrum you are doing something wrong or have gone too far. Some comrades with back problems are not supposed to hyperextend their spines at all.

4. The Side Bend



This goodie will stretch your side muscles and further decompress your spine, for that taller feeling.

Stand with your feet shoulder width and your knees locked. 'Grow tall' by reaching overhead (see photo to the left).



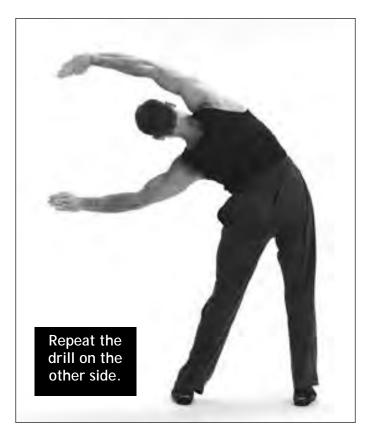
Lean strictly sideways as if you are sliding along a wall (see photo to the right). Do not twist!

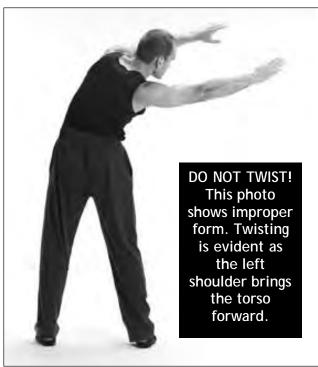


Inhale and squeeze your butt tight. Whenever you have a hard time contracting a given muscle, flexing your glutes helps. Read up on the phenomenon of irradiation in *Power to the People!: Russian Strength Training Secrets for Every American* if you want to know why. Or just accept it as the ultimate truth; the Party is always right!

Let go in a second. Your body should fold slightly sideways without twisting. Your hips will move in the opposite direction to maintain the balance.

Once you cannot get any deeper in good form, squeeze your butt to get an irradiation boost, and slowly get up along the same path you have come down. If you do not flex your glutes you will be tempted to twist.





5. The Spine Rotation

As usual, contract
the muscles you are
about to stretch.
If you are stretching
clockwise, push
against the chair
in the opposite
direction:
counterclockwise.



Sit upright in a chair with a stiff back. Solidly plant your feet to anchor your hips. Consider wrapping your feet around the legs of the chair.

Open your chest and turn your torso around your vertical spine. Hold on to the chair.

As usual, you shall contract the muscles you are about to stretch. If you are stretching clockwise as in the photo, push against the chair in the opposite direction: counterclockwise. Use your waist muscles; the arms just pass on the force. Unlike the previous stretches that respond to one-second contractions nicely, this drill usually calls for a longer time under tension—usually around five to ten seconds. Obviously you should not be holding your breath this long; breathe shallow.

Release the tension and air and increase the stretch by rotating further with the help of your arms. Do not slump over.

Keep at it, then switch sides. Your grand reward will be an increased rotational mobility in your spine. If you are a golfer, feel free to express your gratitude by putting me in your will.

6. The Lateral Neck and Trap Stretch

Sit in a chair and grab it underneath the seat with your left hand.

Slowly lean your head and your body to the right. Keep your left arm straight. You should feel a stretch along the left side of your neck.

Place your right hand on the left side of your head as shown in the photo.

Push your hand and

your head against each other for a while, anywhere from a few seconds to a minute if your neck is really tight. Breathe shallow.

Do not strive to increase your range of motion by a lot; just concentrate on releasing the tension in your neck and shoulders.

Exhale and relax. Your neck will stretch further.

Repeat a few times. Do not strive to increase your range of motion by a lot; just concentrate on releasing the credit card tension in your neck and shoulders.

Repeat the drill on the other side.

If you have a muscle pull on, say, the left side of your neck, go easy on stretching the opposite, or right, side. When you stretch one muscle, its opposite number has to shorten. That's not a big deal unless the antagonist is injured; then it is likely to spasm. This rule applies all stretches. For example, if you have an injured hamstring and you ambitiously stretch your quad and hip flexor, the hammy will cramp and make you holler for your mommy.

7. The Headache Buster



This variation of the previous stretch is the mother of all tension headache busters.

Turn your head a little to the right side as if trying to touch your collarbone with your chin. The left arm may be in any comfortable position. Better yet, place it behind your shoulder blades. Ideally, grab the right upright of the back of the chair if you can reach that far.

Apply the tension in the plane that crosses your left shoulder and right knee. Naturally, do the drill on both sides, always finishing with the tighter one.

8. The Anti-Slouch Neck Stretch

If you work with a computer or work at a desk, chances are the muscles in the front of your neck have shortened and given you a slouched posture.

Before tackling the following stretch check with your doctor, especially if you have high blood pressure or neck problems.

This will also be the case if you do the dumbest ab exercise of all, the crunch. Say no to crunches and get on the *Bullet-Proof Abs* program! And do not forget to stretch your neck.

Before tackling the following stretch check with your doctor, especially if you have high blood pressure or neck problems. It is a great drill for some and bad news for others. This neck move has been my pet stretch since I got rear-ended by a semi and walked away alive, but without a neck curve. Thanks, Carl.

Lie on the edge of a bench or a sturdy table so your head hangs off the edge.

Inhale and tighten up your neck as if bracing for a punch.

Hold the tension and air for a second and release. Your head will drop a little. Repeat a few times as long as you do not experience discomfort. When you relax between the contractions try to decompress and elongate your cervical spine.

As an option, you may lift your head up a little, or till your chin touches your chest, on the inhalation. Then lower your head on a passive exhalation. Obviously, although you should be relaxed on the way down, exercise control so your head does not drop and whiplash!

9. The Head Turner

Here is the stretch for the comrades who have a hard time looking over their shoulders. Again, if you have an overly tight muscle on one side of your neck take it easy stretching the other side.

Sit in a chair as in the *Headache Buster* and turn your head as far as you can. Do not tilt your head! Just rotate it.



Apply pressure against your head with your hand. Hold the tension for some time without holding your breath.

Release and turn your head further. Use your neck muscles rather than your arm strength.

Perform the drill on both sides.

Do not tilt your head! Just rotate it.

10. The Chest Opener

To stretch your pecs and open up your chest, stand inside a doorway and place your hands slightly below shoulder level. Instead of using a door you can have your training partner hold your wrists.

Your palms should be facing forward and your elbows must be slightly bent for the duration of the stretch.

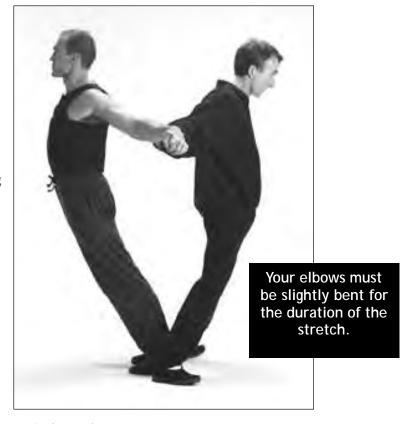
Carefully 'fall' forward and load your pectoral muscles.

Be certain to lean with your whole body rather than just fold at the hips.

Inhale and build up the pressure against the doorway or your partner's hands.

Exert the force as if you are

trying to bring your palms together in front of you.





Hold the tension for five to ten seconds and breathe shallow.

Release the tension and drop forward on a passive exhalation. Drop your whole body rather than just your torso!

Repeat a few times. You rarely need to do more than one set of this stretch.

You can vary the stretching effect around your shoulder girdle by adjusting the height of your hand placement.

11. The Overhead Reach

Here is a crucial stretch for weightlifters and track & field athletes.

Get down on your knees and place your hands on an elevation, for example a chair, a kitchen counter, a power rack pin. Keep your elbows locked.

Press down against the chair. You should feel tension in your armpits and in the back of your arms.

Hold steady tension without holding your breath. Compared to other upper body stretches, this one may require a long time under tension, say 15-30 sec. Some comrades, especially those with well-developed shoulder girdle muscles, may need additional loading. Have your training partner apply steady pressure with his hand against the middle of your back.

Release and drop down. Gently increase the stretch even further by opening your chest and pushing it down.

Start with a very wide grip and narrow it to the shoulder width over a period of weeks and months.



12. The Biceps and Shoulder Stretch



Sit on the floor with your knees bent

and your arms behind you as shown. Keep your elbows slightly bent throughout the stretch.

With some weight on your palms apply pressure forward. It should feel like you are performing a biceps curl and are raising your arms in front of you at the same time. If you are a bodybuilder, imagine you are doing the Arnold curl.

Release. Your body will drop down and you will feel a stretch in your biceps and shoulders.

Carefully scoop your butt toward your feet and repeat the drill.

Do not be overly ambitious.

The shoulders are easy to overstretch!

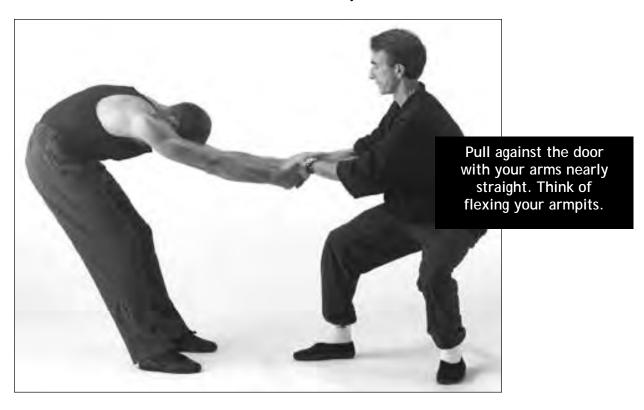
If you feel pinpoint soreness in front of your shoulders the day after this stretch you have gone too far.

It should feel like you are performing a biceps curl and are raising your arms in front of you at the same time.

13. The Shoulder Blade and Lat Stretch

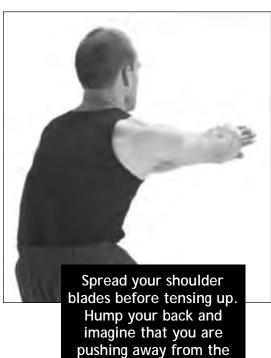
This awesome stretch will loosen up the tight muscles between your shoulderblades and stretch your lats—the muscles that fold like wings, downward from your armpits. Arnold Schwarzenegger used to do a variation of the following stretch to stimulate growth in his latissimus.

With your hands close together, hold on to a sturdy object at waist level. The doorknob on an open door is an option, if you are certain the door will not collapse under your weight. Face the edge of the open door and hold on to the knobs on both sides of it. Your feet should straddle the door under your hands.



Stick your butt out and hang on the door while keeping your arms nearly straight, your head down, and your back rounded. Your knees should stay slightly bent throughout the drill.





doorknob.

Spread your shoulder blades if you can. By humping your back and imagining that you are pushing away from the doorknob you should make them kick out in a short time. If you have done it right you should feel a pleasant stretch between your shoulder blades. Do not get bummed out if it takes a few weeks. Proceed with the rest of the stretch.

Pull against the door with your arms nearly straight! It is tricky but not impossible. Think of flexing your armpits.

Hold the tension and breath shallow for awhile.

Release! You should feel a pull from your armpits along and across your back. Kick out the shoulder blades again, or at least try to, before the next contraction.

14. The Upper Back Loosener

This weird stretch will loosen up the muscles between your shoulder blades from a different angle and stretch out a tight upper back.

Hold on to the doorway or your training partner with one hand. Fold your free arm over the busy one. Keep your feet almost under your holding hand. If you do it right you will feel out of balance.



Lean away over and away from the holding hand. Experiment with the direction of the bend and the height of the holding hand. You will notice that by changing the loading angle you can stretch any spot on your upper back with great precision.

Pull with a straight arm against the doorknob or your assistant's hand.

Release and feel the stretch where you have never felt it before!

For an even greater knot-releasing effect have your partner apply a steady pressure with his knuckles against the spot on your back that feels most tight. Have your comrade increase the pressure when you are tensing and ease up when you relax into stretch.



15. The Wrist Flexion

Get down on your knees and place your hands in front of you, fingers pointing towards you as much as possible. Keep your elbows locked for the duration of the stretch.

Gently shift some weight on your hands until you feel a pull on the inside of your forearms.

Apply pressure against the ground as if trying to straighten out your wrists. Since your forearm muscles sport good endurance, hold the tension for a relatively long time, at least ten seconds.

The angle between your hands and your arms will increase when you have released the tension.

Be careful not to overdo this stretch! It is way too easy to damage the wrists. My arm-wrestling buddies, stay the hell away from this stretch!



16. The Wrist Extension

Assume the same position as in the last stretch, except rest on the backsides of your palms. Keep your elbows locked for the duration of the stretch.

Experiment with the direction where your fingers point; turn them slightly in and then out and note the effect on your forearms.

Contract the muscles on the outside of your forearms, as if trying to stand up on your finger tips.

Release, and increase the stretch by gently shifting your body back.



17. The Good Morning Hamstring Stretch

Bending forward with a barbell on your shoulders is one of the key exercises in weightlifting and powerlifting. For some mysterious reason, it is called 'a good morning'. As my friend and powerlifting champion, Marty Gallagher, has wondered: "Why does such a manly drill have such a 'hearts and flowers' name?"

This stretch closely mimics the Barbell Good Morning which makes it the first choice for an iron rat's hamstrings.

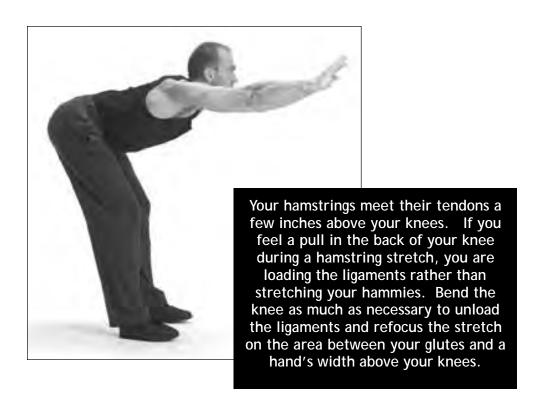
Even if you do not lift anything heavier than your laptop, make this your first hammy stretch because it will finally teach you the difference between stretching your back and stretching your hamstrings. Few comrades get the difference, hence many overstretched backs and overly tight hams.



Stand normally, your feet shoulder width apart and pointing forward. Start by placing the edges of your hands into the creases on top of your thighs. I learned this neat trick from a friend of my wife's, dance instructor Kathy Foss Bakkum. Press your hands hard into your 'hinges' and stick your butt out while keeping your weight on your heels. Your knees should be slightly bent.

Keep your chest open, your lower back arched, and your chin pointed forward throughout this and other hamstring stretches! If you do not, your hammies will remain forever tight.

As you are folding, you will feel a pull right underneath your butt—or a hand's width above your knees. If you do not—read the manual again! Once you have understood what a hamstring stretch is supposed to feel like, reach your arms forward for balance and finally get to work!



Flex the spots where you feel the pull. At the same time squeeze your butt and imagine that you are trying to paw the ground with your heels or push your heels through the floor.

When you release the tension your body will fold like a jackknife. Appreciate the difference between folding like a jackknife and bending forward!

Naturally, you cannot completely relax with the Good Morning stretch because your back must stay straight and your chin up.

After this relative relaxation increase the stretch even more by sticking your butt even further back and, if you know how, contracting your hip flexors—the muscles in the front hinges you have pushed against with your hands. It does not hurt to have a spotter in case you overbalance and keel over. Holding on to something for balance and/or having a wall behind you to break the fall, is another option



If you are still afraid to do the drill standing, you may practice it sitting on the edge of a very sturdy chair. Sitting on the floor will not give you the necessary leverage unless you are already super flexible.

To avoid creating a flexibility imbalance in various muscles on the back of your legs, do not let your feet roll out but point your toes straight ahead or up. There's nothing to it with the Standing Good Morning, because your feet are anchored. But if you choose the Seated Good Morning, you will have to pay attention.



18. The Kneeling Hip Flexor Stretch

Tight hip flexors are the culprit behind bad backs, monkey butts, and athletic mediocrity.

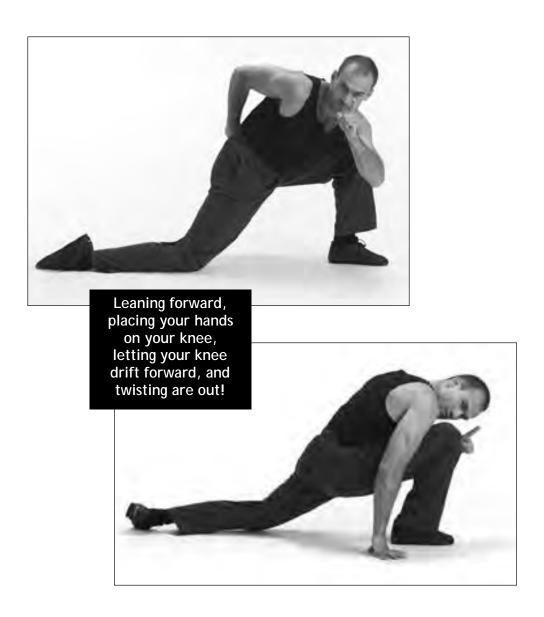
The hip flexors are your glutes' antagonists. When the hip flexors are tight, they do not allow the glutes—which are the strongest muscles in your body—to exert themselves efficiently, be it in running, jumping, punching, or any other activity.

Kneel on the floor and lunge forward. Your torso and the front shin should remain upright for the duration of the stretch and your hips should stay squared off. You may spot yourself with chairs if you wish.

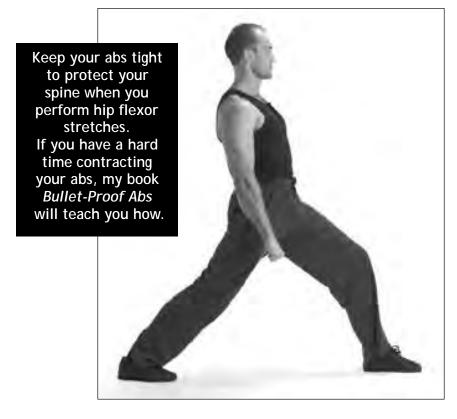


Flex your abs to protect your back and contract the hip flexors—the muscles on the front of the kneeling leg—by imagining that you are going to kick forward with that foot or knee.

Once you release the tension, you will sag straight down. It is imperative for success and safety. Leaning forward, placing your hands on your knee, letting your knee drift forward, and twisting are out! Make a point of looking out and not down because your body tends to follow your head.



19. The Lunge Hip Flexor Stretch



This stretch is an alternative to the kneeling one. Take a reasonably wide step forward while keeping both of your feet pointing forward. Make a point of keeping more than half of your weight on your rear paw and keep the latter straight.

Contract the muscles on the front side of your right leg, the one that is behind. Do the job by imagining that you are kicking a ball forward; just 'suck' your back foot into the ground and push forward. You will feel tension running down your quad. You abs are tight. Make sure to stay totally upright; leaning forward defeats the purpose of all the karate stance stretches.

When you have let go of the tension, you will find that your hips will sag and shift forward slightly. Still stay upright!

Now imagine that you are a fencer performing a lethal lunge and slowly propel yourself forward by pushing off your straight rear leg (Right).

Do not twist; make sure that your body is facing straight ahead. I shall be redundant: do not lean forward.

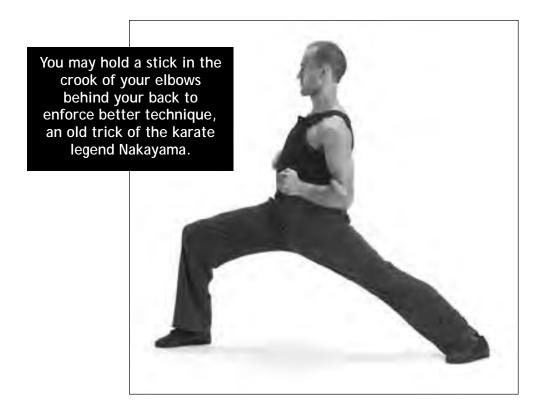




Keep repeating as far as you maintain good form: an upright back and the front shin, squared off hips and torso, both feet pointing forward, the knees track their feet and do not bow in. If you look something like this (Above)—you will have many injuries and zero flexibility! It is OK if your heel slightly comes off the floor though.

20. The Karate Stance Hip Flexor Stretch

Stretch as you did previously: apply forward pressure with the rear leg, then propel yourself forward with the same leg. Now, you will feel the stretch not only at the hip hinge but also in the groin. To be safe, make certain that your back knee is locked and the muscles surrounding it are contracted.



Your rear foot should maintain a surface contact with hundred percent of its surface. Unfortunately, at an extreme angle, this drill becomes hard on the ankle. That is why you should advance to a different stretch, for example, the intermediate groin stretch, before you reach that level. A possible exception is a karateka who makes an informed choice to keep on advancing in this highly karate-specific stretch, in spite of possible health risks.

Do not think that these drills benefit only karatekas, however. I teach this and the following stretch to powerlifters who have a hard time locking out their deadlifts and I cannot think of a sport where they would not be helpful.



This drill works your hip flexors and starts on the groin. It is nearly identical to the previous stretch.

The only difference is that while the feet are still facing in the same direction, they are turned a little less than forty-five degrees to the side. If your right foot is forward as in the photo above, both of your paws will be pointed a little to the left and parallel to each other.

21. The Karate Stance Groin Stretch



performing groin stretches!

This drill, although it targets the groin muscles, also works your hip flexors.

This time keep your feet flat and parallel to each other. The knees stay tightly locked for the duration. Relaxed knees are prone to getting wrenched!

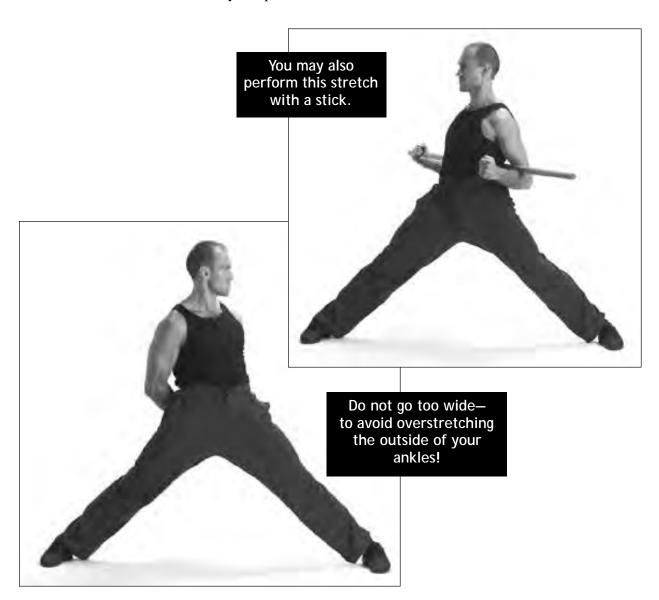
Do not be aggressive on the width of the stance. Make sure that your pelvis is thrust forward. If your butt wants to stick out even when your feet are close together, work on the previous two stretches a while longer.

You may also perform this stretch with a stick. Pinch the floor as if you are trying to slide your feet together or are trying to close scissors.

When you have released the tension, apply the outward pressure with your feet (as if you are opening scissors). At no point should your feet roll in or out; keep your 'suction cups' flat on the ground! As you apply the outward pressure, slowly turn your hips in one direction, and then another. At no point should your butt stick out! You should have a solid, grounded, powerful feeling and your torso will remain upright.

After a few repetitions carefully take a wider step and repeat the drill. I repeat, do not go too wide—to avoid overstretching the outside of your ankles!

Once you have progressed to what you believe is your safe limit, it is a good idea to periodically practice all the karate stance stretches in the maintenance mode—for the powerful body awareness effect they offer for any sport. Perhaps you could do one set of these stretches before your splits.



22. The Seated Groin Stretch

Sit on the floor and place something moderately slippery under your feet. If you exercise on a carpet, glossy magazine covers work well. Thick socks are good on a vinyl mat, and you cannot do better than folded wash clothes for hardwood. Skateboards are to be avoided.

Spread your legs as wide as you comfortably can (don't worry, comfort will end very soon). If you cannot sit with your legs straight and spread and your back insists on staying rounded you are not ready for this drill! Work on your good mornings and karate stretches for awhile before tackling this one.

Place your hands behind your back and gently lift yourself up. Open your chest as much as possible and imagine that you are trying to push the walls apart with your feet. This imagery—recommended by Moscow hand-to-hand combat instructor Vlad Fadeyev—will enable you to immediately increase your stretch by a couple of inches!

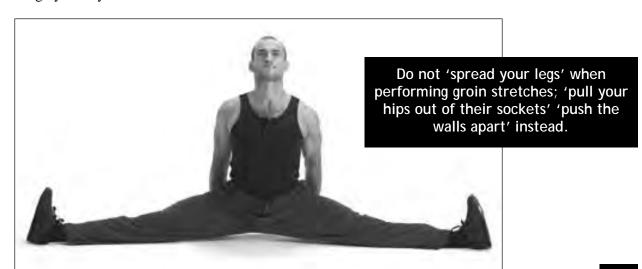


rounded you are not ready for this drill! When the walls refuse to move any further, gingerly lower your butt to the floor. Keeping your chest up, carefully push your belly forward until you feel tension in your inner thighs. Do not round your back. Keep your hands in front of you, but do not touch the ground unless you are heading for trouble and need a spot. Make sure that your toes are pointing to the ceiling and do not flop outward, now or at any point during this stretch!



Contract your tight inner thighs. If you have a hard time getting your adductors to tense up, you have either found some sneaky way of keeping the weight off them (knock it off, before I order you to do pushups!), or you are not ready for this stretch yet. If you cannot spread your legs far enough apart to start with, you will not generate enough leverage. Swallow your pride and go back to the karate stretches.

Hold the tension for a period of time determined by the variation of the contractrelax stretching you are employing. I personally prefer Forced Relaxation and a roughly twenty-second contraction for this stretch.



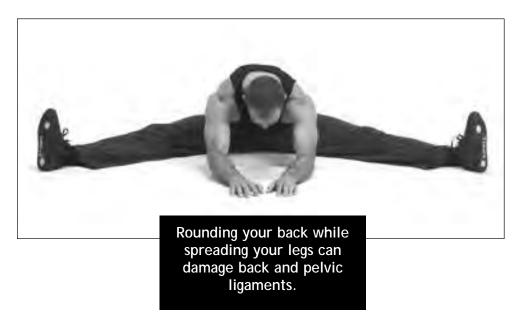
When you finally release the tension with a sigh of relief your limp body will drop forward a little. Your hands may now touch the floor and catch your weight. It is good to use your hands to limit your advance to small increments for increased safety. Be certain to keep your lower back reasonably straight throughout the stretch to increase the effectiveness of the drill and to avoid overstretching the back ligaments!

Flex your adductors again and repeat the drill. You may experience slight pain inside your knees. If you have done everything like I told you and you doctor has assured you that there is nothing wrong with your knees, here is what you should do. Concentrate the tension on the tender spots and hold it for long periods of time, 30-60 seconds, before releasing.

Do not attempt to increase the ROM for a while—weeks or even months. Keep on practicing long contractions without stretching advances, until the tissues around your knees get stronger and stop bothering you.

If, or once, your knees are fine, keep on contracting and relaxing, until your trunk either does not move any further forward without excessive rounding, or the whole thing gets really old. Now it is time to carefully sit up, shift your weight on your hands behind you, and push the walls apart again. Then lean forward and repeat the whole sequence. Once your ROM stops increasing or you start contemplating my murder, slowly get out of the stretch.

You may want to do a set or two in Waiting out the Tension style, before starting your isometric stretching sets.



23. The Calf Stretch

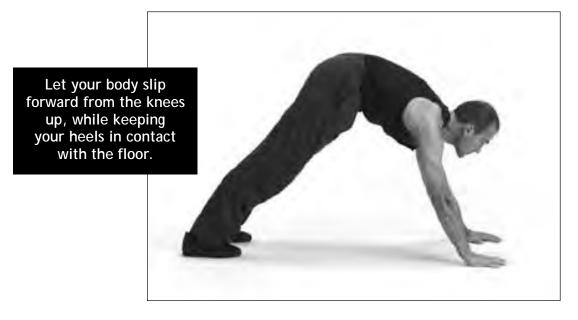
Assume the pushup position on the floor—or against a sturdy elevation if you find the floor stretch too difficult for the time being. Shift your weight to the balls of your feet. Your knees may be slightly bent.



Tighten up your calves by imagining that you are trying to get up on your tiptoes. Hold steady tension for a long time—calves boast spectacular endurance—before releasing it.



Let your body slip forward from the knees up, while keeping your heels in contact with the floor. The angle between your shins and your feet will get smaller. Repeat for the appropriate number of contractions.



Once your calves are strong and flexible you may intensify the stretch by working one leg at a time.



24. The Shin and Instep Stretch

Are the muscles on your shins tight from running? Do you want to be able to point your toes better for kickboxing or dancing? Then this foot-flexion stretch is for you.

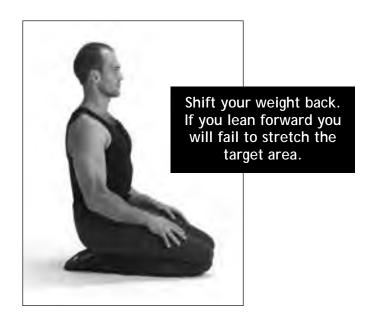
Sit on your heels with your toes pointed back. If your knees refuse to hyperflex painlessly, stick a stiff pillow or something similar between your hamstrings and your calves, to limit knee bending.

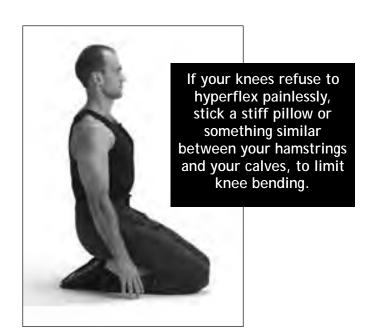
Shift your weight back. If you lean forward you will fail to stretch the target area. Contract the muscles on your shins by pushing with your insteps against the floor, as if you are trying to bring your toes towards your knees.

When you release the tension, your body will sink a little, as your feet move toward being in a straight line with your shins.

Now point your toes even more—as if someone is pulling you by your toes and is trying to pull your ankles out of their sockets.

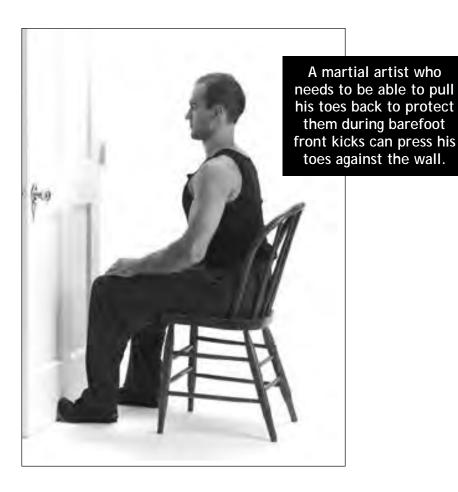
Repeat the whole sequence as many times as necessary.





Most of the above stretches are demonstrated on the companion video, *Relax into Stretch*.

The application of *Relax into Stretch* technique is not limited to the stretches described above. You can creatively solve most unusual flexibility needs with the techniques you have learned. For instance, a martial artist who needs to be able to pull his toes back to protect them during barefoot front kicks can press his toes against the wall.



How much flexibility do you really need?

We did it for Britain and for the hell of it.

—Richara Nobie, on breaking the woria automobije absolute speed record

Is flexibility always good? Can you be too flexible?

Americans don't think so. They stretch just for the sake of stretching. They just can't get enough.

Sorry to burst your bubble. Soviet research demonstrated that you need only a small flexibility reserve above the demands of your sport or activity. Excessive flexibility can be detrimental to athletic performance.

A classic Soviet text, *The Theory and Methodology of Physical Education*, warns: "One must remember that in some cases excessive flexibility not only does not help the athlete's technique, but interferes with it by 'dispersing' the acting forces (for example, a very flexible spine and a relaxed torso when taking off for a jump)."

Old school strongmen instinctively avoided stretching. They felt they could lift more weight if they stayed 'tight'. They were right. The stretch reflex fired sooner, making them more prone to an injury, but helping them to move more iron.

Russian Olympic weightlifters avoid full range movements of the muscles surrounding the hip and knee joints. Too much flexibility in that area makes the lifter sink too deep when he is getting under the barbell. The same is true for powerlifting. Fortunately, powerlifters, as a group, are least influenced by the pop fitness culture's deification of relaxed stretching, high carb/low fat/low protein diet, and other stupid ideas.

That is not to say that powerlifters do not need flexibility. They do—but no more than necessary to lift in good form. For example, tight hamstrings 'tuck your butt under'. As a result, back strength is wasted on fighting against your own hams, rather than the weight, in the squat and deadlift.

Soviet researcher, weightlifting champion, and coach Robert Roman determined that an athlete loses 15% of his pulling strength when he lifts with a rounded, rather than a flat back. That could mean the difference between first and last place!

Also, your hamstrings or back are likely to get injured. Hamstrings take forever to heal, but it is not the end of the world. The back is a more serious matter. A properly arched spine can support ten times more weight than a straight one, and even more than a rounded one. Ever heard a disk blow out? Sounds like a high tension cable going boink!

The lesson is not to stretch your hams until you can tie your shoes with your teeth, but just enough to maintain a tight arch in the 'hole', the bottom of the squat.

Whatever your sport, pay careful attention to the effect more flexibility has on your performance. Up to a point, your game will improve through increased efficiency of movement and less frequent injuries. Beyond that point you are in the red.

In sprinting, good spine rotation is needed for optimal technique—but an excessively loose trunk does not allow you to take full advantage of the pumping action of the arms.

In shot put or boxing, a super flexible waist will absorb the leg and hip drive instead of transferring it to the shoulder.

Even in a sport like kickboxing, one can get too flexible. When we finished our presentations at the Arnold Schwarzengger's Martial Arts Seminar, Bill 'Superfoot' Wallace told me over a hamburger that at one point he had worked up to a two hundred ten degrees negative side split (a classic split is one hundred and eighty degrees). The champion kickboxer's hips got so loose that he started having trouble snapping his kicks back after they had made contact with the target. That is when Superfoot pulled the plug on excess and decided that normal, straight line, splits are enough.

Never use flexibility to compensate for poor technique. Bodybuilders often complain how limited ankle flexibility affects their squat. Sorry, boys, when you squat properly, the movement in the ankle is minimal and you should be able to squat wearing ski boots. Learn to squat from a lifter and do not waste your time in a ballet class.

If you do not play sports and stretch just for health and the hell of it, it is up to you to decide how far you want to go. Just make sure that you have a small reserve of flexibility beyond the requirements of your lifestyle and check with a medical professional that you have no postural problems due to muscle tightness.

Expect that you will be more flexible in some areas than others. The ability to do a split does not automatically qualify you to do a competition style snatch. Having flexible hips does not imply mobile shoulders. The combo of an overstretched back and tight hamstrings is more widespread than high cholesterol.

Flexibility developed with one exercise does not always improve the range of motion of the same joint when tested in other exercises. In one study a group of subjects trained the toe-reach standing, and the other seated. Those who stretched in the seated position did not do well when they were tested standing. The other group did well on both tests. Go figure.

Conclusion: the transfer of training effect is inconsistent. Sometimes you have it, sometimes you don't. The fact that, say, the sit-and-reach is a part of the standard flexibility test is meaningless. I taught an NFL player how to cheat on that test and have no guilty conscience whatsoever.

If a stretch does not improve your game or make you feel better—lose it.

To sum up: develop some flexibility reserve beyond the demands of your sport and lifestyle, then keep on going as long as more mobility does not start having an adverse effect on your game.

I will either teach you how to do splits—or I will talk you out of it. No more guilt, Comrade!

When flexibility is hard to come by, build strength

Make a habit of holding tension in the final stretched position for thirty seconds.

If excessive flexibility is not your problem, rather the other way around, here is a couple of plateau-busting strategies.

First, get stronger. Typically a stronger muscle does not have to contract as hard as a weaker one to exert the same amount of force—and it more willingly relaxes into a stretch. If you hit a plateau with Forced Relaxation or other iso stretches, you should stop trying to increase the range for a while and concentrate instead on building strength.

Push harder. More importantly, push longer. When McDonagh and Davies reviewed the results of many studies of isometric strength training, they found out that variables such as the intensity of the contraction and the training frequency did not seem to matter much. The single common item in all successful programs was the high total time under tension in all the sets (e.g. TUT = 3 sets x 3 contractions x 30 seconds long = 270 sec).

Obviously, you can bump up the TUT by doing more contractions, more sets, or simply increase the tension holding time in your Forced Relaxation or *Clasp Knife* stretches.

Even if you are not at a standstill, where the going gets tough near the end of the stretch, it is a good idea not to up the ROM after every contraction. Try every other repetition. And make a habit of holding tension in the final stretched position for thirty seconds, as recommended by Prof. Leonid Matveyev.

Two more plateau busting strategies from the iron world

If they did [call me a sissy because I studied ballet], I'd stomp 'em and do a pirouette on their heads.

—Ken Avery, Cincinnati Bengais iinebacker

Once you have mastered muscle length and tension control, it is hard to lose it. Although it is not quite as permanent as riding a bike—according to Popenko's data, your flexibility decreases by 10-20% in two months of no stretching—it is possible to maintain a high degree of flexibility in just two to three sessions a month.

Mike Song, a rock climber from Minneapolis who did his first split a couple of weeks after he took my seminar was too busy to train for a month afterwards. To his surprise, he went all the way into a full split the first time he tried it after the layoff! In fact, occasional time off will help you to improve due to the *reminiscence effect*.

In 1984 Jerry Moffat, the world's top rock climber from England, called it quits and rode into the sunset on his motorcycle. Nobody expected miracles from Jerry when he returned to the rock two years later. Yet two weeks after his comeback the supposed has-been climbed the best performance of his career!

Motor-learning experts know that a skill tends to improve after a layoff, the so-called *reminiscence effect*. Multiple repetitions of a drill, a rock climbing technique, a reverse punch, a split, or a deadlift, forms what Russians call the *dynamic stereotype*, or a 'how-to manual' of this movement in the athlete's nervous system. You learn to perform exactly as practiced—the form, the force, the range of motion, etc.

Although forming a dynamic stereotype is necessary to master a sports skill, once it is formed, it is difficult to improve on. Once you have reached a plateau, continued practice only reinforces it, which is why a powerlifter has to start all over with lighter weights once he has set a new personal best.

If you lay off stretching, your brain gets a chance to forget your limit. This is the essence of the reminiscence effect. Once your old PR has been erased, you are ready to train for a new one!

Russian author, Victor Popenko, advocates another plateau-busting strategy similar to a layoff—the *stepwise progression*.

It is known that, in any endeavor, it takes much less effort to maintain the achieved performance level than to reach it in the first place. Say, you have been practicing splits for five sets three times a week. You have made good progress but finally hit the wall. Then cut back to the minimal amount of stretching which maintains your current level, for example two sets once every five days.

Maintenance requirements vary from person to person. I can skip up to a month and still do a split in a seminar through shear grit. Most comrades need to practice at least once every five to seven days, lest they choose to slide back. Having stabilized your flexibility for a few weeks, once again increase your training load—and exceed your old limits!

It is interesting that, while the layoff strategy is similar to powerlift cycling, Popenko's stabilization backoff is similar to the Bulgarian and Chinese weightlifters' practice of reducing the volume of their lifting by 40% every fourth week.



Advanced Russian Drills for Extreme Flexibility

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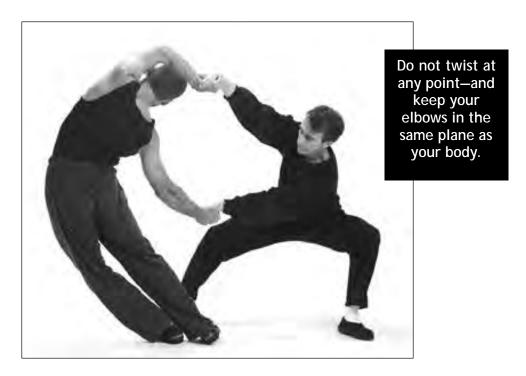
25. The Side Stretch



This stretch from gymnastics hits your obliques and lats hard, at the same time.

Hold on to something stationary, a training partner, a power rack, or a doorway with your hands wide apart and your body strictly sideways. Do not twist at any point!

Keep your legs straight. Push your hips away from the support



Inhale, contract your glutes, and pull with your top arm The elbow stays above your head!

Release and fall further away while staying in one plane.

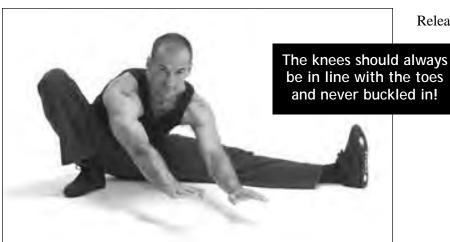


26. The Cossack

This cool stretch will loosen up your hips and improve your squatting ability. It is not nearly as tough as splits; I have placed it in the advanced section because beginners have a hard time tracking their knees properly. The knees should always be in line with the toes and never buckled in!



Squat down on one leg while keeping the other leg straight and relatively unloaded. You may hold on to something for balance. Squat down as deep as you can and squeeze your butt.



Release and sink deeper.

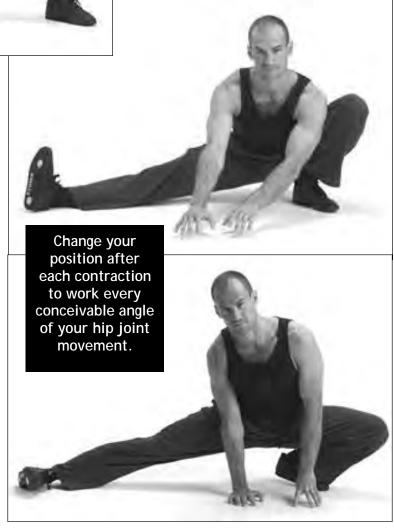


Do the drill in both directions. Change sides whenever you feel like it by pivoting near the ground.

Switch your position after each contraction to work every conceivable angle of your hip joint range of motion. Break up the distribution of weight between your feet; vary the direction where your unloaded foot is pointing; shift the weight on your support foot from your heel to your toes and back. Get a distinct feeling of 'rolling' in your hip joint when you switch positions. 'Elongating' your straight leg, as you have done during splits, will help.

Make sure to keep one leg totally straight except when you are switching sides! Understand that the Cossack stretch is not for everyone's knees.

You may combine the Cossack stretch with the Cossack mobility drill from *Super Joints*.



27. The Reverse Cossack

The so-called IT band on the outside of your knee tends to tighten up big time in runners. My buddy John Faas reports from the U.S. Navy SEAL training base in San Diego that even elite frogmen are not immune against this problem and stretch their ITs religiously. Here is the best way.



leg tracking its foot.

Assume the illustrated position.
Keep your right leg straight and your left knee tracking your left foot for the duration.

With most of your weight on the outside of your straight right leg pivot and 'screw yourself into the ground'.



Push with the outside of your right foot into the ground, then release and sink. Note how your body leans away from the chair in the bottom position to amplify the stretching effect.



Repeat the drill with your left paw.

28. The Hip and Side Stretch

This stretch—popular in former East Germany—hits your hips in a slightly different fashion and stretches your side muscles as well. It works best if you hold a light weight; a can of mushroom soup will do for starters.

Step with one foot on a stool or another elevated surface. Do not bend your knee beyond ninety degrees throughout the stretch.

Make sure to position your floor-based leg in a manner that does not bother your knee during the stretch; the rule of thumb is to align the knee and the foot in the same direction.





Shift your weight to the heel of the elevated foot and tighten your glute. Your body will slip down inside your knee when you release the tension. The weight in your hand will help to track your body in the right groove.

If you find that you cannot keep the knee of the elevated leg out of your body's way, you need to improve your groin flexibility before having another pass at the evil GDR stretch.

29. The Crawling Lizard

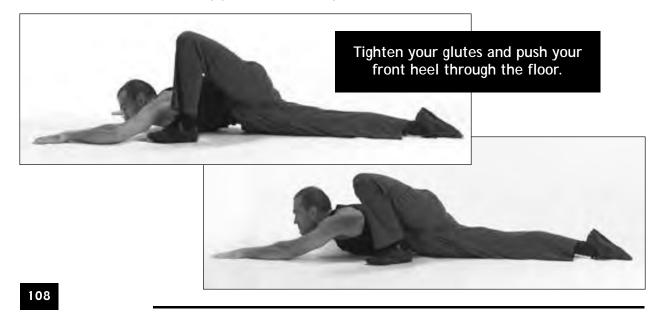
'The Crawling Lizard' is a Russian folk name for this intense butt stretch.

Assume the position illustrated. If you cannot, you probably need to work on your hip flexors awhile longer before giving it



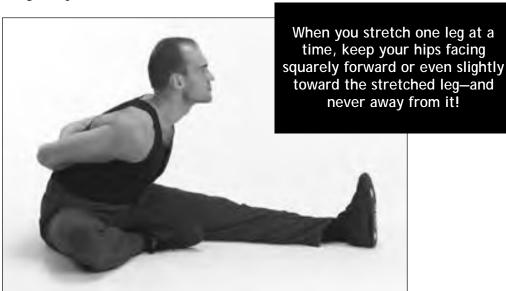
The front shin must be vertical and most of your weight should be on the heel of the front leg. Tighten your glutes and push your front heel through the floor.

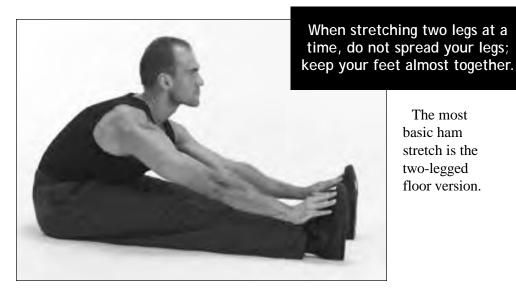
Your body will sag as you release the tension. Reach out with the arm opposite of the stretched leg to balance your body; press your palm into the floor. Eventually your soft underbelly should rest on the floor.



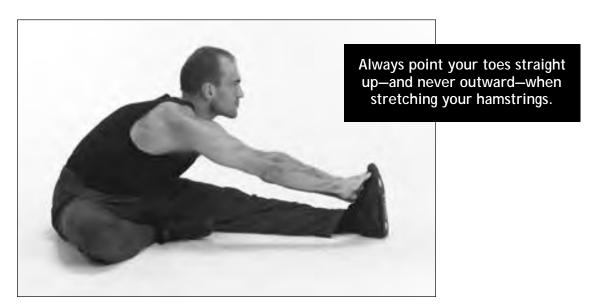
30. Hamstring Stretches

Once, thanks to good mornings, the difference has sunk in—between folding at the hip and bending from your back—you may choose from a variety of the following hamstring stretches. They all obey the same rules as the good morning: chin and chest up, back straight, dig with your heels, fold at the hip, etc. Keep your knees slightly bent or locked depending on your preference and health history. As an option, you may keep your hands behind your back to ensure a straighter spine.





The most basic ham stretch is the two-legged floor version. For the one-legged version, fold one of your legs toward the opposite knee—not the other way, as in the hurtful hurdler stretch! Make sure to keep your weight over the stretched leg and not away from it!

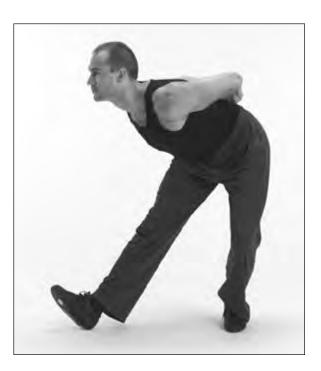




There are also easier chair versions—for the majority of Comrades who are not flexible enough just to keep their backs straight, when seated on the floor with their legs in front of them.



The free standing one-legged ham stretch is a good one for nearly any level. Make a point of keeping your weight over the leg you are stretching. Also, keep the bent knee of the other leg tracking your slightly turned out foot; never let your knees bow in!





The cool knee-on-the-floor chair stretch is very user friendly, because the kneeling leg is pulling the pelvis in the right direction. Make sure to pad your knee with something soft and to watch your balance. You may surround yourself with a couple of chairs for balance if you wish.

If you choose the same stretch with your foot planted on the floor, pay attention not to wrench the knee of your support leg.



The weird stretch that has you hook the other leg underneath some object, say a heavy table or your training partner, takes advantage of an obscure neurological phenomenon related to locomotion. Basically, the contracting right hamstring will help the left one relax. This stretch is not for weak hamstrings because it places a lot of

weight—relative to the other stretches—on the stretched muscle. Do not hesitate to surround yourself with chairs for safety.



Conventional hamstring stretches encourage more flexibility in the outer hamstrings (biceps femoris) than the inner hamstrings (semimembranosus and semotendinosus). We are anything but conventional, so we shall not worry about the inner hamstrings; they will be taken care of by your groin stretches; concentrate on the outer ones. To feel more loading on the outside than the inside of the hamstring, do two things.



First, make a point of always pointing your toes straight up—and never outward—when stretching your hams.

Second, when you stretch one leg at a time, keep your hips facing squarely forward or even slightly toward the stretched leg—and never away from it!

31. Hip Flexor/Quad Stretches

When Comrades complain of tight quads, their problem is usually the hip flexors.

One muscle of the quadriceps group, the rectus femoris, also flexes the hip, so it has been stretched with the previous stretch. If, for some strange reason, you need to work on your knee flexion as well, take your pick of the following modified hip flexor stretches. I do not advise that you attempt them until you get proficient with the basic kneeling hip flexor stretch and the karate stance hip flexor stretch.





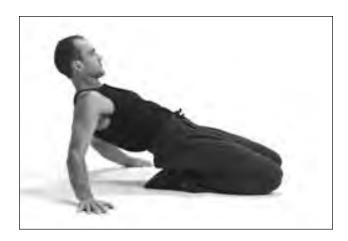


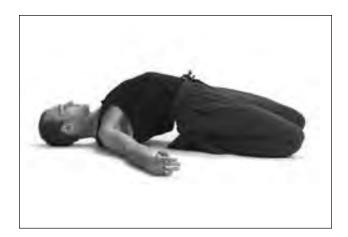






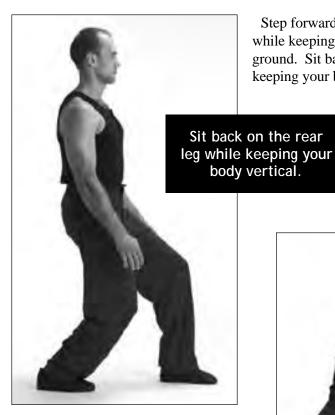
Some advanced trainees with a compelling cause may try the kneeling quad stretch. Clear it with your doctor; this stretch is way too rough on most comrades' knees! The stretch is initiated by imitating the leg extension strength exercise or trying to straighten out your legs against the floor. Be certain not to spend much time in a relaxed position when performing this stretch, to minimize the loading of the knee ligaments.





32. The Lower Calf Stretch

This stretch has found its way into the advanced section because it requires strong quads and above average body awareness. The purpose of the drill is to stretch the lower calf, or soleus, for sports and activities that require good ankle flexibility in positions with a bent knee, for example shotokan karate.



Step forward slightly with one foot while keeping the other one flat on the ground. Sit back on the rear leg while keeping your body vertical.

Contract your rear calf by pushing with the ball of your foot into the ground. Hold the tension—it may take a long time to tire out your calf—then release and sink straight down. Your rear knee will drop down while your heel stays on the ground.



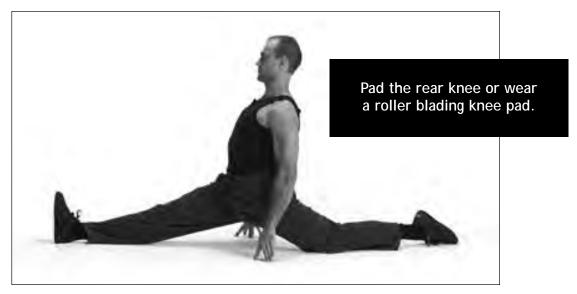
33. The Front Split



As you are working on your hip flexor and hamstring stretches, periodically test yourself on the front split. Assume the kneeling hip flexor stretch position between chairs. With all of your weight on your arms inhale and push the walls apart—the walls in front and behind you, that is. As with the hip flexor stretches, make a point of keeping your hips squared off and your rear knee facing the floor. It is a good idea to pad that knee—slip sliding magazine covers under both the knee and the feet.



Do not force yourself down; think of making yourself longer, 'pulling your hips out of their sockets'. Once you can get within a foot of the floor, you may start practicing the front split. If you cannot, it is better to stick to your hamstring and hip flexor stretches for a while.



Carefully shift your weight away from your arms; now your hands are barely touching the chairs. Your arms are ready to catch you if you goof up somehow, but they are not carrying any weight unless your leg muscles are very weak.

Once you are very close to the floor—and you are able to rest your fists there without bending over—you may part with the chairs.

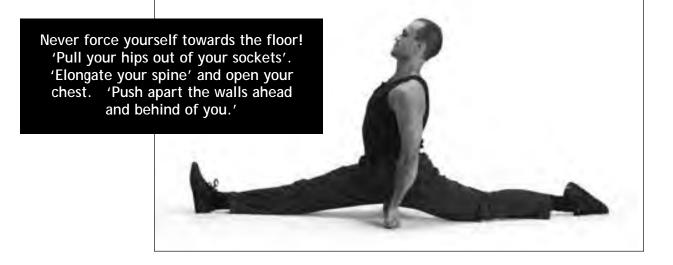
Tighten up the stretched muscles and pinch the floor. If you have a hard time doing it, just squeeze your butt and abs and everything else will follow. Do not twist your back knee! If the pressure from the floor bothers the knee—and it will, until you can get your thigh flat on the ground—pad it better. Even wear roller skating pads if you have them. This trick will help you avoid the grave mistake most splitters make—twisting your knee sideways to relieve the pressure.

Maintain steady tension in your legs, glutes, and abs. It is crucial. If you cannot put up with the progressive fatigue and pain of an extended isometric contraction, if you semi-relax your leg muscles now and then, you are wasting your time!

Hold the tension until your hamstrings and hip flexors literally collapse from exhaustion. It may take any time between a few seconds to a few minutes. It will not be enjoyable, which is irrelevant.

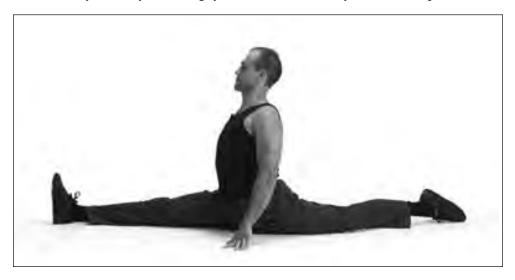
When you feel your tired and, perhaps, quivering, muscles involuntarily relaxing, remember the lesson of contrast breathing and let out a sigh of relief. It will help your beat-up hams and thighs go limp.

Once you have released the tension and dropped a little—just a little, to maximize safety! —catch yourself on your arms, then, with the weight on your arms, push the walls apart as you did in the beginning of the stretch. Make sure to stay upright and squared off!



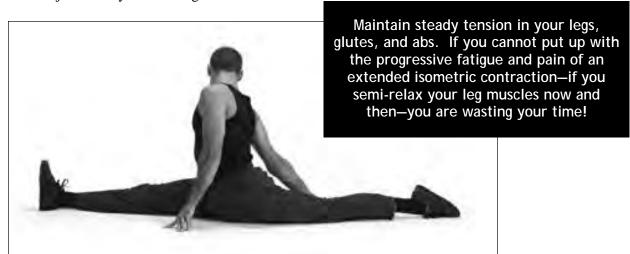
Shift your weight back to your front heel and rear knee, flex your stretched muscles, and exhaust them into submission again. Keep plugging away until you get tired, or your range of motion stops improving, whichever comes first.

Alternate the tension with the release and elongation. Eventually you will find yourself in a full split. If you do not look like the photo, if your trunk or knee is twisted and your body is leaning, you cannot claim that you can do a split!



Russian specialist Fillipovich advises holding your lowest position in the splits for 10-20 sec. If you are tough, you can bump up this time to a couple of minutes and even hold the muscles under tension. Scream your heart out!

Once you are down all the way, you may increase the difficulty of the stretch by rotating your torso away from the rear leg. You could also stick some phone book sized object under your front leg.





You may have noticed that when you make the transition from a side split to the front split or vice versa you end up in a 'martial arts split'. Less challenging than either the side or the front split, the martial arts split is nevertheless a good stretch. It is highly specific to karate and other kicks and may be practiced by itself, even before you are ready for the classic splits.

Starting your split workout with non-forceful split switches—they are featured in the Super Joints program as a tool for improving the mobility and health of your hip joints—is guaranteed to advance your splitting cause.

The martial arts split will not tolerate bent knees—and vice versa.





34. The Bent Press Stretch

Although this stretch looks deceptively similar to the triangle asana from yoga it has a radically different history and body mechanics. This drill is derived from the 'bent press' strength feat popularized in the XIX century by legendary Russian strongman, Eugene Sandow.

The bent press stretch ranks advanced because it requires precise coordination if it is to be performed safely. Consider owning the companion videotape, to get this one right.

If you do the bent press stretch correctly you will feel it on the outside of your butt. The bent press stretch is great for 'decramping' your outer thighs after side splits and cannot be beat for relieving soreness after heavy deadlifts and squats. If you have sciatica pain from a tight piriformis muscle—not from disk problems! —ask your doctor if this stretch can fix it. This exercise's chest opening effect is nothing to sneeze at either.



Lift your right arm overhead, eventually with a weight, and kick out your right hip to the side. The action is similar to 'crease folding' in the good morning stretch but is done more to the side than to the rear. Note the position of the feet.

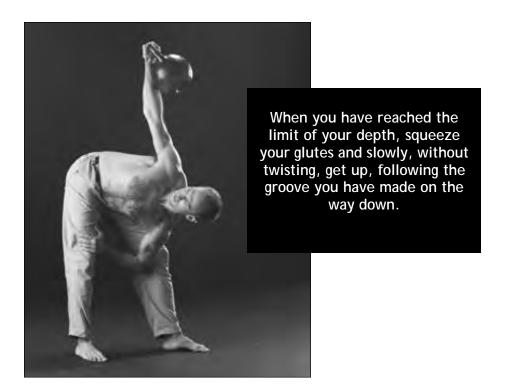
Keep your right knee locked and try to keep as much weight as possible on your right leg throughout the stretch. The other knee may be bent; this is not yoga, Comrade!

Keep your chest open and your eyes on your hand or weight. Tighten up your right glutes, hold the tension for a while, then release and fold sideways. Keep your free hand wherever it is comfortable.



Keep the knee on the side of the elevated arm locked and try to keep as much weight as possible on this leg throughout the stretch.





When you have reached the limit of your depth, squeeze your glutes and slowly, without twisting, get up, following the groove you have made on the way down. Naturally, work both sides.

If you like the well-rounded combination of strength, flexibility, and balance demanded by this drill, do yourself a favor and check out *The Russian Kettlebell Challenge: Xtreme Fitness for Hard Living Comrades*.

35. The Modified Reverse Triangle

Lock both knees and keep more weight on your forward foot.

This one is not that different from the reverse triangle pose from yoga. A good advanced stretch for many core muscles. Very rewarding but not totally safe for an ordinary comrade.

Unlike the last stretch, this one demands that you lock both knees and keep more weight on your forward foot. The foot alignment is identical; wider than the shoulders, the rear one is pointing almost straight forward, and the front one almost straight ahead.

If your right foot is forward, inhale, reach up with your left arm, elongate your body, and turn to the right.



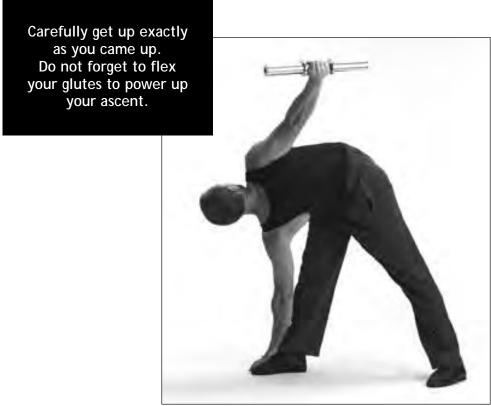
Now comes the tricky part. Fold sideways while looking up at your right hand as the left one is sliding down the right leg.

Squeeze your butt and press your hand against your leg. Relax and fold.

Carefully get up exactly as you came up. Do not forget to flex your glutes to power up your ascent.

It goes without saying, work both sides. You may use a weight but keep it light.

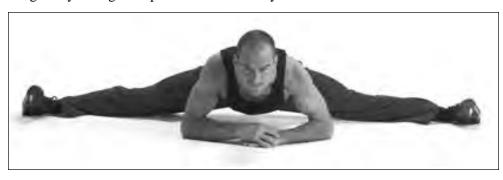




36. The Road Kill Split

The road kill stretch cannot be beat for increasing rock climbers' and dancers' turnout.

When you have achieved some proficiency in the seated groin you may ever so carefully shift all of your weight to your elbows. Your hips will be in the air and your legs will form a straight line, if viewed from above. Slowly transfer your weight to your legs and pinch the floor with your feet.



Bending your knees during any type of a side split is an invitation to an injury.

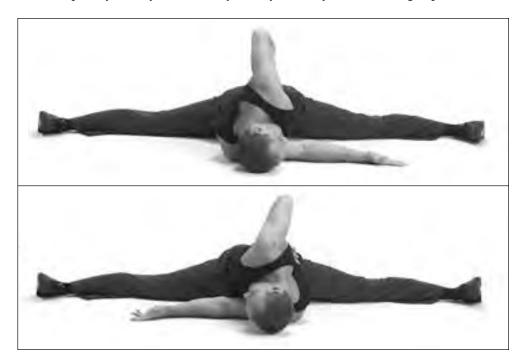
Once you have released the tension, your feet will slide apart a little. Shift your weigh to your elbows and push the walls apart even further.



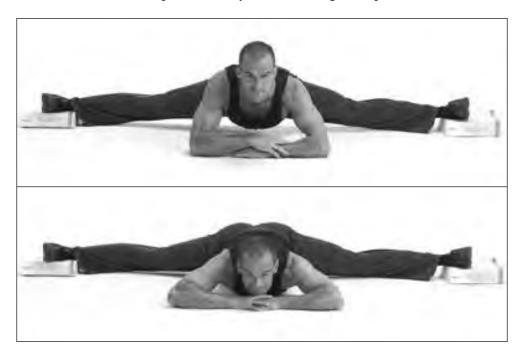
Repeat the sequence with the eventual goal of getting flatter than a roadkill!



At this point you may occasionally twist your body to break things up a bit.



You are also are also ripe to elevate your feet for negative splits.



Although I use phone books on the photographs, I advise that you rig up something that does not have a tendency to split open and move in unpredictable directions under your feet. A plastic box for tools perhaps? Improvise.

Once you have mastered the road kill stretch you may try a side split. If you are tough enough, that is.

37. The Side Split

Russian commandos pride themselves on their ability to perform a 'dead split'. But, not because anyone plans on kicking the enemy in the head.

Imagine: you've ski-marched over the frozen tundra, with a hundred pounds of gear, on the wooden regulation skis known as 'coffins'. You have eaten nothing but lingonberries, dug up from under the snow. You've brushed your teeth with evergreen branches, if you are lucky enough to be that far South. Believe me, the last thing you would do is a high kick!

Anyone in his right mind sticks to the Indiana Jones school of fighting and shoots the bastards.

Even if he is out of ammo, a commando does not resort to spinning back kicks to the head. No, he'll use the dirty fighting skills of 'applied karate', of combat sambo, or the esoteric and deadly moves of Russian Martial Art. This way you get to send the bad guys to Valhalla—without wasting the energy equivalent of a Tae Bo workout, in the process.

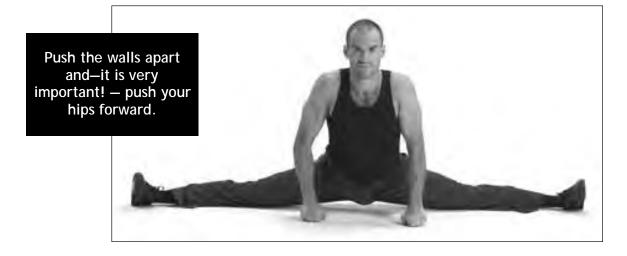
So why bother with the side split?

Because, unless you have mastered it at the tender age of a cheerleader, the side split is one of the best exercises in mind control and pain tolerance.

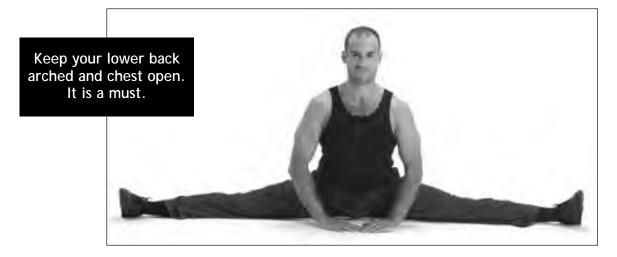
Yes, the 'dead split', as the toes forward side split is called in Russia, is as painful as it looks! On one hand, pain, fear, and anxiety reduce flexibility by increasing the sensitivity of the stretch reflex. On the other hand, it is possible to will a stretch reflex not to fire! In other words, the split can be achieved, but you must go beyond good, evil, and the pain of twenty rep squats or childbirth!

Start by eating a bottle of aspirin... Just kidding. Don't be sensitive, OK? Stand on a couple of glossies and place your hands or fists on the floor in front of you. Bend forward and place your hands on the floor in front of you. I suggest that you point your fingers toward you or use your fists, but it is not a must. It also happens to be the only choice you will have in the splitting matter. Enjoy it while it lasts. You are on Soviet territory now and I am the commandant of the camp!

With your weigh on your arms, look up, open your ribcage, and push the walls apart. Keep your toes pointed more or less forward.



Slowly transfer your weight to your legs and assume as upright a position as you can muster. Keep your lower back arched. It is a must. The pelvis usually gets in the way of your femurs when you try to spread them apart. Tilt your pelvis forward by making your lower spine go concave—and it gets out of the way!



Pinch the floor with your feet with one to two thirds of your maximal strength (the stretching mode of choice is *Forced Relaxation*). Build up the tension gradually, over a couple of seconds. It is easy to get injured when you rapidly flex a stretched muscle, Comrade!

Hold steady, unwavering tension for twenty seconds, perhaps even longer, and do not forget to breathe. Although holding the contraction for such a long time is not always necessary to relax the muscle effectively, it helps to build strength.

Suddenly release the tension with a sigh of relief and allow yourself to sink a little deeper into the split. It seems impossible when your body feels like it is being torn in half, but it can be done. Relaxation is mind over matter. If you do not mind the pain, it will not matter.

Gently lift yourself up with one hand in the front and one behind you. Push the walls apart and—it is very important!—push your hips forward. Before we start hurting, you must understand that you will never, ever do a side split without positioning your pelvis in one line with your feet!



Drive your hips forward at every opportunity, try to get them in line with your feet. Push your hips forward with the help of your arms. There are three hand positions to choose from. You can push-pull with one hand in the front and one behind you; you can grip the floor in front of you with your hands and pull yourself forward; or, once you are flexible enough, you may push from behind your back.

Leaving the glutes a few inches behind the heels is a fatal mistake, which keeps many very flexible people from going down all the way in a split. They either end up falling on their butts, or sitting down on the floor with their legs spread wide, but never wide enough. This subtlety is something the devious insiders of the stretching racket would rather not reveal. The fewer people can do the splits, the more accomplished the stretch pros look.

It is your lucky day. First, I have given away the farm, and now I shall unclassify my method of mastering the proper hip alignment in the quickest possible way!

The secret to kill for is: to push your hips forward with the help of your arms.

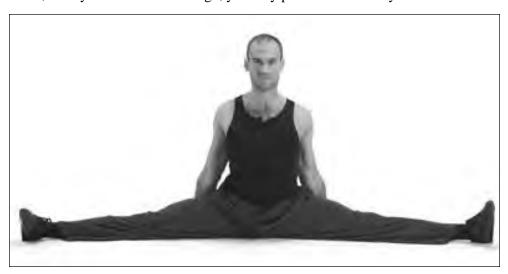
There are three hand positions to choose from. You can push-pull with one hand in the front and one behind you...



...you can grip the floor in front of you with your hands and pull yourself forward...



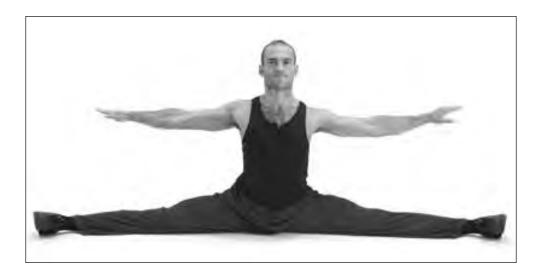
...or, once you are flexible enough, you may push from behind your back.



If you have diligently waited until you can do a perfect road kill split before attempting the Russian split, you will feel that the muscles in the front of your thighs resist the stretch more than your inner thighs. It is normal. It is time to shift your concentration from your groin to these front muscles: sartorius, psoas, etc. Consciously contract all of the above, the muscles underneath and in the front of your hip joints, once you have driven your hips forward.

Hold that tension! If your muscles start quivering and give out by themselves at some point during the stretch (*Clasp Knife*), do not freak and take it as a favor. As before, alternate the contractions with relaxations and the wall pressing action.

Drive your hips forward at every opportunity, and try to get them in line with your feet. If you do it right, you should be able to sit in a full split without leaning on your hands—and your legs will form a straight line when viewed from above.



Keep at it, until you can no longer increase your stretch or you have reached your pain threshold. Carefully get out of the stretched position. Do not twist your knees and do not panic! Try to use the strength of your groin muscles to get up.

There is no way around pain if you want quick results. John Faas cannot help straining his vocal cords and soaking his T-shirt with sweat when I am putting him through the moves. Twenty-year old John is a rare exception from the generation of slackers feeling sorry for themselves. A second degree taekwondo black belt, he has been preparing for service in the SEALs since he was twelve (John is finishing his frogman training in San Diego as we speak). John is as tough as they come and still he cannot help hollering like an exorcist victim. "Are your balls on the floor yet, trooper?"—"Yes, sir!"

Although, as the U. S. Navy SEAL saying goes, "pain is just weakness leaving your body", you must differentiate between the pain of injury or overstretch and the pain of high muscular tension. The technique I am describing does not stretch your muscles but tricks them into relaxing and picks up the slack. Therefore you should feel the extreme contraction of a heavy exercise with weights, rather than the forced pull of overzealous stretching. Ease into splitting the Russian way, to learn the difference.

If pain is not a friend of yours (shame on you!), you can minimize it by emphasizing strength gains in the stretched position, over flexibility. Take your time and build up great strength at your comfortable flexibility limit, before moving deeper into the stretch. It might take you a year to work your way down into a full split, but at least you will not suffer... as much.

Split every two to three days, or as often as four times a week if you choose the 'pain light' approach. Do not do any more sets and contractions than it takes to reach your daily limit. Two to four sets work best for most people. Hold the last contraction of the last set steadily for at least thirty seconds, more if you have the fortitude.

Once you have worked your way down to the floor and want to try the suspended split a la Jean Claude Van Damme, use phone book sized plastic boxes instead of chairs. Physiologically there is no difference, but the former are less likely to put you out of commission for good.

If you hit the wall, do not ever try to excuse your lameness with your age or 'the way you are built'. Studies show that anyone with normal hip and back ROM can learn to do side splits if they learn proper alignment! Only the folks with fused vertebrae, degenerative hip joint disease, and other equally nasty problems truly cannot. The rest just do not want it bad enough. They are content to remain poorly assembled collections of body parts, devoid of any athletic ability.

How bad do YOU want it? To change your shape at will—like an advanced model quicksilver Terminator?

Most of the above stretches are demonstrated on the companion video, *Relax into Stretch*.

Relax into Stretch delivers instant flexibility!

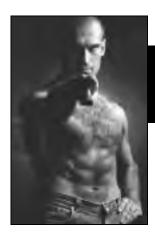
Conventional stretching attempts to literally elongate your tissues, which is dangerous and ineffective.

Relax into Stretch simply teaches your muscles to relax into a stretch. If you compare traditional training to a messy hardware reorganization, then *Relax into Stretch* is an efficient software upgrade.

While stretching tissues may take years, changes in the nervous system are immediate! Your muscles will start noticeably elongating from your first *Relax into Stretch* practice—and within months you will have achieved a level of flexibility uncommon in our species.

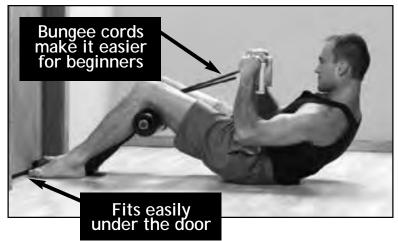
Comrade, welcome to the ranks of mutants! You've been Pavelized!

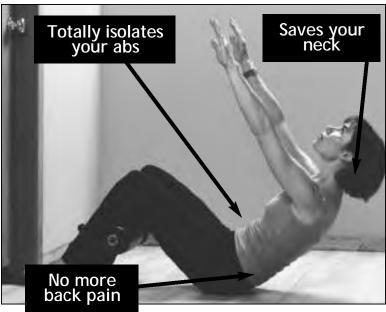




Join the Strength Elite For Ever— When You Own the *Rolls Royce* of Ab

Introducing the Ab Pavelizer—the fastest, safest way to a ripped powerhouse of six-pack muscle





In his groundbreaking book *Bullet-Proof Abs*—and in the new companion video—
Russian Special Forces conditioning coach **Pavel Tsatsouline** reveals the Janda situp,
the world's safest and most effective situp.

Leading back and muscle function expert,
Professor Janda discovered the secret to true
ab strength—how to scientifically isolate the
abs by "taking out" the hip flexors.

The result: an awesome exercise that scorches the abs, while avoiding the spine-wrecking, neck-jerking antics of traditional (read: outmoded) situps.

Until now, the Janda situp required a partner, for correct form. But with the introduction of the **Ab Pavelizer**, you can quickly develop world-class abs without having to rely on a friend. Now it's strictly between you and your abs. In just a few minutes a day, you can own the world—**ABSOLUTELY**.

The Rolls Royce of Ab Machines, you say? Well, more like the unholy union of a Humvee and a Rolls. Scary thought! Perhaps there should be a law against it. You get brutally rugged, all-terrain durability that'll stand a lifetime pounding from the most berserk of fitness freaks. Then there's the smooth-as-smoke, gloss powder coat finish that makes you just wanna stroke and caress the goddarn beauty of the thing. Strong abs are the core, the very foundation of your power-why risk your success and future health with some flimsy, cheapo abstoy? You deserve better. You deserve the best-get it today! And say goodbye forever to flabby abbies.

To Take Possession of Your New Abs Call This Number Immediately: 1-800-899-5111

"It Has Never Been So Easy to Have UNGODLY ABS"

Item # P9 The Ab Pavelizer



 The Ab Pavelizer easily fits under a door, allowing you to perform a partner-free Janda sit up.

NOTE: Each Ab Pavelizer comes with "under door" attachability, Olympic plate adapter, bungee cord and handles.

2. Slide on a simple attachment (included), when you want to stabilize your Ab Pavelizer with a thirty-to-fifty pound Olympic plate. (You will need to supply your own plate)





3. The Ab Pavelizer, ready to use with an Olympic plate. Note the accompanying bungee cord, for those who need the extra help initially.



Testimonial Comments

"I have seen many abdominal routines in the last 25 years and the *Beyond Crunches* program is the best yet."—Steve Maxwell, M.Sc., Senior World Brazilian Jujitsu Champion

"The Russians are years ahead of us when it comes to training...Pavel is the man!"

—Todd Steussie, Minnesota Vikings

"I learned a lot from Pavel's books and video, and plan to use many of his ideas in my own workouts, especially the nontraditional ab exercises described in *Beyond Crunchess*—Clarence Bass, authorof Ripped 1, 2 & 3.



"As a world record holding powerlifter, I know the importance of strong abs on maximum power performance. *Beyond Crunches* is THE text and authority on ab/trunk stability"—

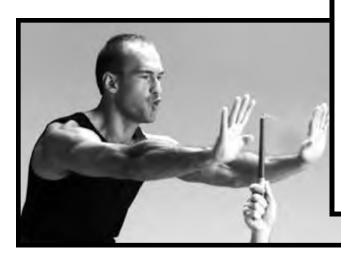
Dr. Fred Clary, National Powerlifting Champion and World Record Holder.



BEYOND CRUNCHES

By Pavel Tsatsouline Video, Running time: 37 min

\$29.95 #V90



"An Iron Curtain Has Descended Across Your Abs"

ossess a maximum impact training tool for the world's most effective abs, no question. Includes detailed follow-along instructions on how to perform most of the exercises escribed in the companion book, *Bullet-Proof Abs* Demonstrates advanced techniques for ptimizing results with the Ab Pavelizer.

As a former Soviet Union Special Forces conditioning coach, **Pavel Tsatsouline** already knew a thing or two about how to create bullet-stopping abs. Since then, he has combed the world to pry out this select group of primevally powerful ab exercises—guaranteed to yield the fastest, most effective results known to man.

- Fry your abs without the spine-wrecking, neck-jerking stress of traditional crunches.
- No one—but no one—has ever matched Bruce Lee's ripped-beyond-belief abs. What was his favorite exercise? Here it is. Now you can rip your own abs to eye-popping shreds and reclassify yourself as superhuman.
- Russian fighters used this drill, *The Full-Contact Twist*, to increase their striking power and toughen their midsections against blows. An awesome exercise for iron-clad obliques.
- Rapidly download extreme intensity into your situps—with explosive breathing secrets from Asian martial arts.
- Employ a little-known secret from East German research to radically strengthen your situp.
- \bullet Do the right thing with "the evil wheel", hit the afterburners and rocket from half-baked to fully-fried abs.
- "Mercy Me!" your obliques will scream when you torture them with the Saxon Side Bend.
- How and why to never, never be nice to your abs—and why they'll love you for it.
- A complete workout plan for optimizing your results from the Janda situp and other techniques.

(Right) Pavel's Abstrengthening breath techniques will give you the power to explode a water bottle—but don't try this trick at home—if the extreme air—pressure whacks back into your lungs, instead of exploding the water bottle—you can end up very dead, which is a bummer for everyone.

(Left) Pavel demonstrates the Power Breathing technique Bending the Fire to develop an extra edge in your abs training.





"Power to the People! is absolute dynamite. If there was only one book I could recommend to help you reach your ultimate physical potential, this would be it.'

> -Jim Wright, Ph.D., Science Editor, Flex Magazine, Weider Group

POWER TO THE PEOPLE!

RUSSIAN STRENGTH TRAINING SECRETS FOR EVERY AMERICAN

By Pavel Tsatsouline 81/2" x 11" 124 pages, over 100 photographs and illustrations—\$34.95 #B10



ow would you like to own a world class body-whatever your present condition- by doing only two exercises, for twenty minutes a day?" A body so lean, ripped and powerful looking, you won't believe your own reflection when you catch yourself in the mirror.

And what if you could do it without a single supplement, without having to waste your time at a gym and with only a 150 bucks of simple equipment?

And how about not only being stronger than you've ever been in your life, but having higher energy and better performance in whatever you do?

How would you like to have an instant download of the world's absolutely most effective strength secrets? To possess exactly the same knowledge that created worldchampion athletes-and the strongest bodies of their generation?"

Pavel Tsatsouline's Power to the People!-Russian Strength Training Secrets for Every American delivers all of this and more.

As Senior Science Editor for Joe Weider's Flex magazine, Jim Wright is recognized as one of the world's premier authorities on strength training. Here's more of what he had to say:

"Whether you're young or old, a beginner or an elite athlete, training in your room or in the most high tech facility, if there was only one book I could recommend to help you reach your ultimate physical potential, this would be it.

Simple, concise and truly reader friendly, this amazing book contains it all—everything you need to know—what exercises (only two!), how to do them (unique detailed information you'll find nowhere else), and why.

Follow its advice and, believe it or not, you'll be stronger and more injury-resistant immediately. I guarantee it. I only wish I'd had a book like this when I first began training.

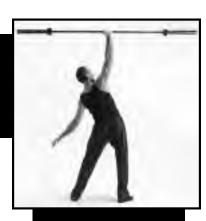
Follow this program for three months and you'll not only be amazed but hooked. It is the ultimate program for "Everyman" AND Woman! I thought I knew a lot with a Ph.D. and 40 years of training experience...but I learned a lot and it's improved my training significantly."

And how about this from World Masters Powerlifting champion and Parrillo Performance Press editor, Marty Gallagher:

"Pavel Tsatsouline has burst onto the American health and fitness scene like a Russian cyclone. He razes the sacred temples of fitness complacency and smugness with his revolutionary concepts and ideas. If you want a new and innovative approach to the age old dilemma of physical transformation, you've struck the mother-lode.'

Here's just some of what you'll discover, when you possess your own copy of Pavel Tsatsouline's Power to the People!:

- How to get super strong without training to muscle failure or exhaustion
- How to hack into your 'muscle software' and magnify your power and muscle definition
- How to get super strong without putting on an ounce of weight
- Or how to build massive muscles with a classified Soviet Special Forces workout
- Why high rep training to the 'burn' is like a form of rigor mortis and what it really takes to develop spectacular muscle tone
- How to mold your whole body into an off-planet rock with only two exercises
- How to increase your bench press by ten pounds overnight
- How to get a tremendous workout on the road without any equipment
- How to design a world class body in your basement—with \$150 worth of basic weights and in twenty minutes a day
- How futuristic techniques can squeeze more horsepower out of your body-engine
- How to maximize muscular tension for traffic-stopping muscular definition
- How to minimize fatigue and get the most out of your strength training
- How to ensure high energy after your workout
- How to get stronger and harder without getting bigger
- Why it's safer to use free weights than machines
- How to achieve massive muscles <u>and</u> awesome strength—if that's what you want
- · What, how and when to eat for maximum gains
- How to master the magic of effective exercise variation
- The ultimate formula for strength
- How to gain beyond your wildest dreams—with less chance of injury
- A high intensity, immediate gratification technique for massive strength gains
- The eight most effective breathing habits for lifting weights
- The secret that separates elite athletes from 'also-rans'
- · How to become super strong and live to tell about it



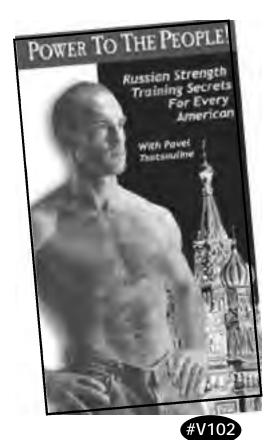
"You are not training if you are not training with Pavel!"

—Dr. Fred Clary, National Powerlifting Champion and World Record Holder.





Russians have always made do with simple solutions without compromising the results. NASA aerospace types say that while America sends men to the moon in a Cadillac, Russia manages to launch them into space in a tin can. Enter the tin can approach to designing a world class body—in your basement with \$150 worth of equipment. After all, US gyms are stuffed with hi-tech gear, yet it is the Russians with their metal junkyard training facilities who have dominated the Olympics for decades.



POWER TO THE PEOPLE

By Pavel Tsatsouline Video, Running time: 47 min

\$29.95 #V102



Now, It's Yours for the Taking: Irresistible Strength and a Body-to-Die-For

Turn on Pavel's *Power to the People!* video and watch in amazement as you rapidly increase your strength by 20, 30, even 50 percent—often in one session!

You may, or may not, want to startle your friends, excite your lovers, scare your enemies and paralyze your neighbors with envy, but believe me, it's gonna happen when you easily absorb Pavel's breakthrough strength secrets.

Of course, what's most important is how you're gonna feel about yourself. Get real! Toss out your lame rationalizations and pathetic excuses. Stop behaving like a spoilt brat about your infantile levels of strength. Stop hating yourself for banging your head against phony training plateaus. Now you can smash through the glass ceiling of your ignorance and burst into the higher reaches of maximum performance.

Let's face it—it's a delicious feeling to be as strong as a panther—confident, sure-of-yourself, genuinely attractive, a <u>SPECIMEN, THE GENUINE ARTICLE</u>, stalking the streets with evident power and natural grace.

I don't care who you are or what you are, I promise you: grab Pavel's Power to the People! video IMMEDIATELY, plug yourself in—and IMEAN, PLUG YOURSELF IN—do what it says, and you won't believe the new you.

Whatever your current workout program, just download Pavel's strength techniques for an immediate improvement in your results.

- Achieve super-strength without training to muscle failure or exhaustion
- Know the secret of hacking into your 'muscle software' to magnify power and muscle
- Get super strong without putting on an ounce of weight
- Discover what it really takes to develop spectacular muscle tone
- Discover how to mold your whole body into an off-planet rock with only two exercises
- Now you can design a world class body in your basement—with \$150 worth of basic weights and in twenty minutes a day
- Discover futuristic techniques to squeeze more horsepower out of your body-engine
- Discover how to maximize muscular tension and get traffic-stopping muscular definition
- Learn why it's safer to use free weights than machines
- How to achieve massive muscles and awesome strength—if that's what you want
- How to master the magic of effective exercise variation
- Know how to gain beyond your wildest dreams—with less chance of injury
- Discover a high intensity, immediate gratification technique for massive strength gains
- Discover the eight most effective breathing habits for lifting weights
- Learn the secret that separates elite athletes from 'also-rans'

Praise for Pavel's Power to the People!

"In **Power to the People!** Pavel Tsatsouline reveals an authen tically Russian approach to physical fitness. He shows how anyone, by learning how to contract their muscles harder, can build up to incredible levels of strength without gaining an ounce of weight. He shows how to exercise with a superstrict form and lift more weight than can be accomplished by swing or cheat. Now it's possible to train the human body to world-class fitness standards at home, working out for twenty minutes a day, and with only \$150.00worth of basic weights. **Power to the People!** is a highly recommended addition to any personal or professional physical fitness reference bookshelf."—**Midwest Book Review, Oregon, WI**

Brash and insightful, Power to the People is a valuable compilation of how-to strength training information. Pavel Tsatsouline offers a fresh and provocative perspective on resistance training, and charts a path to self-improvement that is both practical and elegantly simple. If building strength is your top priority, then *Power to the People* belongs at the top of your reading list. —**Rob Faigin, author of Natural Hormonal Enhancement**

POWER TO THE PEOPLE!

"I learned a lot from Pavel's books and plan to use many of his ideas in my own workouts. *Power to the People'* is an eye-opener. It will give you new—and valuable—perspectives on strength training. You will find plenty of ideas here to make your training more productive."—Clarence Bass, author of Ripped 1, 2 &3.

"A good book for the athlete looking for a routine that will increase strength without building muscle mass. Good source of variation for anyone who's tired of doing standard exercises."—Jonathan Lawson, IronMan Magazine

"I have been a training athlete for over 30 years. I played NCAA basketball in college, kick boxed as a pro for two years, made it to the NFL as a free agent in 1982, powerlifted through my 20's and do Olympic lifting now at 42. I have also coached swimming and strength athletes for over 20 years. I have never read a book more useful than **Power to the People!** I have seen my strength explode like I was in my 20's again—and my joints are no longer hurting. "—**Carter Stamm, New Orleans, LA**

"I have been following a regimen I got from *Power to the People!* for about seven weeks now. I have lost about 17lbs and have lost three inches in my waist. My deadlift has gone from a meager 180lbs to 255 lbs in that short time as well."—**Lawrence J. Kochert**

"Like *Beyond Stretching* and *Beyond Crunches*, his other books, this is great. I think that it is the best book on effective strength training that I have ever read. This is not a book just about theory and principles. But Tsatsouline provides a detailed and complete outline of an exact program to do and how to customize it for yourself. It is very different from anything you have probably every read about strength training. The things he teaches in the book though won't just get you strong, if you want more than that, but can make you look really good—lean, ripped, and/or real big muscled if you want it. It's a very good book; the best available English-language print matter on the topic of strength training."—Dan Paltzik

"The great thing about the book "Power to the People!" is that it tells the readers what not to do when training for strength and why not. As you read the book, you will keep saying to yourself: "so that's why I'm not getting stronger!" Pavel points out all the things that are wrong with conventional weight training (and there is lots of it) and shows the readers what they need to do to get stronger, but not necessarily bigger."—Sang Kim, Rome, GA

"Using Pavel Tsatsouline's weight training methods from his book *Power to the People* gives you the feeling that you can take on the world after only a 20-30 minute workout! Tsatsouline's book is written with such cleverness, clarity, and detail that I couldn't put it down. I am thoroughly enthusiastic about weight training where my past indoor training consisted only of Yoga postures. I would recommend this book to anyone interested in enhancing their performance on the job, in weight training, and in other athletic pursuits.

Pavel's genius is that he can take a complex subject like weight training and design a program that is enjoyable, efficient and gets fast results. He has done the same thing for abdominal development and stretching."—Cliff D.V., Honolulu, Hawaii

"I have experienced Pavel Tsatsouline's methods up close and in person, and his scientific approach lays waste to the muscleheaded garbage that we've been conditioned to follow. Pavel will show you how to achieve a full-body workout with just two core exercises and \$150 worth of barbell equipment. You won't get injured and you won't get stiff. You'll just get what you were looking for in the first place - a program that works and one that you'll stick with." — David M Gaynes, Bellevue, WA

"It isn't growth hormone... it's Pavel! This is THE definitive text on the art and science of strength training... and that's what it's all about, power! Page after page of the world's most useful and productive strength-training practices are explained in this book. A lot of experienced lifters, who think that they know how to train, will be humbled when they find out how much better Pavel's system is than anything the western iron-game community has ever done. I have surpassed all my previous bests...and I no longer need or use lifting belts. I learned how to up-regulate tension through his "feed-forward" technique, how to i mmediately add AT LEAST ten pounds to every lift via "hyperirradiation", and to do it in my best form ever, and how to gain on every lift WEEKLY through the Russian system of periodization without any plateaus! Seriously, I gain every week! You only need TWO exercises! Pavel explains which ones, how to do them and how often. Also, you'll learn how to train to SUCCESS, not to "failure", how to immediately turn any lift into a "hyper lift", teach your nervous system how not to ever "miss" a lift, and simultaneously make your body far less injury-prone! Pavel illustrates the two types of muscle growth and which one you REALLY need, and the all-important power breathing. Pavel's training is the most valuable resource made available for strength athletes since the barbell. The breathing techniques alone are worth the asking price. This book is my personal favorite out of all his works, and in my opinion, they should be owned as a set. This book is superior to all the muscle mags and books that dwell on a content of unessential details of today's "fitness culture" and yet never fully explain the context of training for strength. Pavel cuts right to the heart of the "muscle mystery", by explaining the all-important context of the Russian system: quick

efficient, permanent strength gains, without spending a small fortune on "me-too" bodybuilding supplements and without unnecessary, time consuming overtraining. Now I only hope he writes a book on full-contact training..."—**Sean Williams, Long Beach, NY**

"This is a real source of no-b.s. information on how to build strength without adding bulk. I learned some new things which one can't find in books like **Beyond Brawn** or **'Dinosaur Training'**. Perhaps an advanced powerlifter, who reads Milo, already knows all that stuff, but I would definitely recommend this book to everyone from beginners to intermediates who are interested in increasing their strength."

—Nikolai Pastouchenko, Tallahassee, Florid

"Forget all of the fancy rhetoric. If you are serious about improving your strength and your health buy this book and pay attention to what's provided. I started in January 2000 doing deadlifts with 200 lbs. Three months later I was at 365 lbs. Pavel knows what he is talking about and knows how to explain it simply. That's it."—Alan, Indiana

The Russian Kettlebell Challenge Xtreme Fitness for Hard Living Comrades with Pavel Tsatsouline. Master of Sports

An ancient Russian exercise device, the kettlebell has long been a favorite in that country for those seeking a special edge in strength and endurance.

It was the key in forging the mighty power of dinosaurs like Ivan "the Champion of Champions", Poddubny, Poddubny, one of the strongest men of his time, trained with kettlebells in preparation for his undefeated wrestling career and six world champion belts.

Many famous Soviet weightlifters, such as Vorobyev, Vlasov, Alexeyev, and Stogov, started their Olympic careers with old-fashioned kettlebells.

Kettlebells come in "poods". Apood is an old Russian measure of weight, which equals 16kg, or 36 pounds. There are one, one and a half, and two pood K-bells, 16, 24, and 32kg respectively.

To earn his national ranking, Pavel Tsatsouline had to power snatch a 32kg kettlebell forty times with one arm, and forty with the other back to back and power clean and jerk two such bells forty-five times.

Soviet science discovered that repetition kettlebell lifting is one of the best tools for all around physical development. (Voropayev, 1983) observed two groups of college students over a period of a few years. A standard battery of the armed forces PTtests was used: pullups, a standing broad jump, a 100m sprint, and a 1k run. The control group followed the typical university physical training program which was military oriented and emphasized the above exercises. The experimental group just lifted kettlebells. In spite of the lack of practice on the tested drills, the KB group showed better scores in every one of them.

The Red Army, too pragmatic to waste their troopers, time on pushups and situps, quickly caught on. Every Russian military unit's gym was equipped with K-bells. Spetranz, Soviet Special Operations, personnel owe much of their wiry strength, explosive agility, and never quitting stamina to kettlebells. High rep C&Js and snatches with K-bells kick the fighting man,s system into warp drive.

In addition to their many mentioned benefits, the official kettlebell lifts also develop the ability to absorb ballistic shocks. If you want to develop your ability to take impact try the official K-bell lifts. The repetitive ballistic shock builds extremely strong tendons and ligaments.

The ballistic blasts of kettlebell lifting become an excellent conditioning tool for athletes from rough sports like kickboxing, wrestling, and football. And the extreme metabolic cost of high rep KB workouts will put your unwanted fat on a fire sale.

The Russian Kettlebell Challenge

Xtreme Fitness for Hard Living Comrades

with Pavel Tsatsouline, Master of Sports

Item # V103 \$39.95

Video Running Time: 32 minutes

If you are looking for a supreme edge in your chosen sport—seek no more!

Both the Soviet Special Forces and numerous world-champion Soviet Olympic athletes used the ancient Russian Kettlebell as their secret weapon for xtreme fitness. Thanks to the kettlebells's astonishing ability to turbocharge physical performance, these Soviet supermen creamed their opponents time-and-time-again, with inhuman displays of raw power and explosive strength.

Now, former Spetznaz trainer, international fitness author and nationally ranked kettlebell lifter, Pavel Tsatsouline, delivers this secret Soviet weapon into your own hands.

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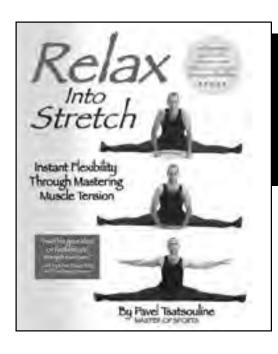






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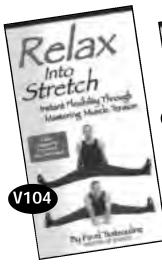
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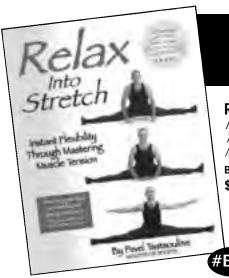
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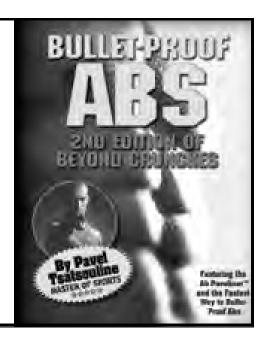
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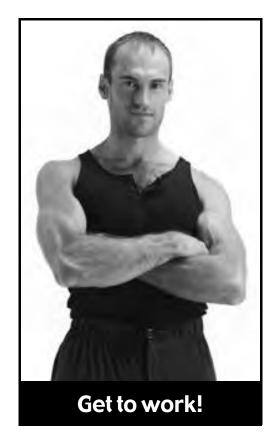
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About the Author Pavel Tsatsouline Master of Sports

Pavel Tsatsouline, Master of Sports, is a former physical training instructor for Spetsnaz, the Soviet Special Forces, an articulate speaker, and an iconoclastic authority on flexibility and strength training. Pavel was nationally ranked in the Russian ethnic strength sport of kettle-bell lifting and holds a Soviet Physical Culture Institute degree in physiology

and coaching. Tsatsouline has authored three books, *Beyond Stretching*, *Bullet-Proof Abs*, and *Power to the People!*

'The Evil Russian' also spreads Communist sports and fitness training propaganda through tailored workshops in a variety of athletic, corporate, and public settings. For seminar availability please e-mail to Pavelizer@aol.com.

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